

TRAVEL ISSUE TOP HEALTH, FITNESS & DE-STRESS VAY-CAYS

Women's health & fitness

Your Best

Australia

**SMART
BODY
TRICKS**

**SNEAK CHEATS
TO TRY NOW**

**FIND
YOUR
FITNESS
MOJO**
*Motivation
& Energy
Roadmap*

6

**stretches
for strength**
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CONTROL?**
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TAME THEM

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BY EATING
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YOUR GOAL THIS MONTH IS CONSISTENCY.

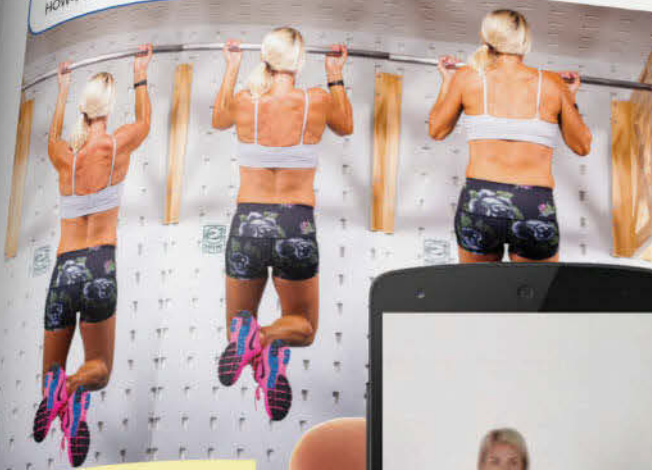
- Create your own secret plan of attack, ready to maintain momentum over the winter months. Aim to tick off 10 express workout sessions.
- 4 stretch-yoga sessions
- 4 x 40 to 60-minute quality cardio sessions
- 3 family/friends fun sessions
- 4 rest sessions.

Remember, you don't need fancy equipment; you can do a lot with resistance bands, a chair and a sturdy beam to give you a bar for your pull-ups!

EXERCISE
TARGET MUSCLES
HOW-TO

PULL UP/CHIN UP

Work your back, biceps, forearms. They are THE indication of overall fitness. Anybody who can do a pull-up is in pretty good shape...I'm still working on building mine up and the journey is fun!



NOTE: You can do the pull-up exercises at the gym or use suspension bands over a beam or strong rail as well – using resistance bands for assisted pull-ups is a fantastic way to build your strength and your technique. This is an extremely empowering exercise and can get fast results if you persevere.



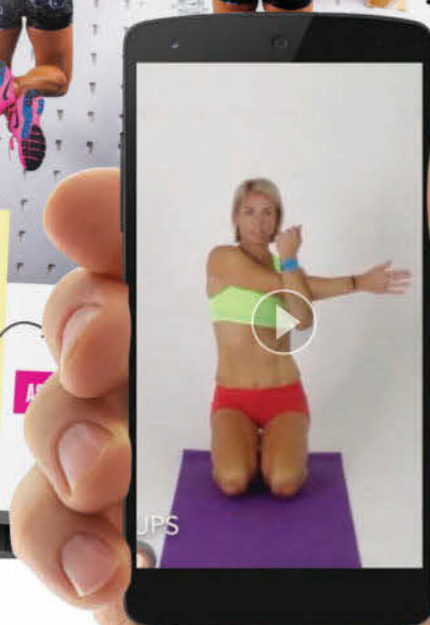
CHEST PRESS

The standing chest press strengthens the chest muscles, the pectoralis major and minor, as well as the front fibres of the deltoid shoulder muscle.

- Attach the centre of the band to a stationary object and hold one end in each hand.
- Stand with your back to the attachment, elbows bent and shoulders abducted to 90 degrees (upper arm level with shoulder) so that your hands are next to your chest.
- Push forwards and straighten your arms out in front of you.
- Slowly return to the starting position.

The best way to get better at pull-ups is to do pull-ups. Here is how with our bands: assisted with resistance bands – add these steps. Loop a band over the pull-up bar. Place a foot or knee in the band. Complete pull-ups as normal. Step down carefully and release yourself from the bar. Step one foot out first to avoid snap backs.

- **Doing a pull-up:** Tighten your butt and your abs throughout the entire exercise – try not to swing, so slow down the movement. Keep your shoulder blades pinched together and focus on PULLING the bar down with your arms.
- Use the least amount of assistance that you can handle. If you're using an exercise band, try to get a few bands of varying tension so you can decrease the resistance as you get stronger. When you can do three out of eight with assistance, move on up and either use the resistance bands or try unassisted. As soon as you can try one unassisted then go to the next level. It's a great way to master the pull-up, you can do more reps and use heavier bands such as wide and weighted.



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July 2015



TRAVEL SPECIAL



54 Getaway clinic

Don't spend your vacation feeling sick, sore and sleepy

92 Offshore upgrade

We speak to pros about going under the knife, internationally

98 Eat pray eat

Make healthy eating an international affair

110 Diet break

The reassuring science of holiday eating

88

Retreat remix

YOUR BEST >> LOVE IT

12 The Pulse

Exercise, food, sex & love, beauty, wellbeing, life...*your best* breakthroughs

32 Signal fault

Is your body sending you a message? Get a sense for signs of trouble and find out what they mean

38 Perfect timing

Find out how to break free of your body clock 'blah' moments

44 The yes paradox

Say no to always saying yes and learn how to put yourself first

YOUR BEST >> FLAUNT IT

58 Around the world in 10 beauty products

Gorgeous products from around the globe

YOUR BEST >> MOVE IT

62 The power of now

Locate your lost mojo with a personal pep talk

70 The science of stretch

Perfect your technique and stretch your benefits

74 Crash course

Move aside, tummy fat. Try these techniques to free your abs

76 Erosion explosion

This high-intensity workout gets results in 16 teeny minutes



44

The yes paradox



116

BodyBlitz
Grand
Champion



38

Perfect timing

80 Core belief

Take tummy toning to the next level

82 Fit food

Whip up a wholesome marble mug cake in just three minutes

102

Health-friendly foreign foods

YOUR BEST >> ROAMING

88 Retreat remix

Relax your way with these retreats selected especially for you

YOUR BEST >> FUEL IT

104 Are your hormones outta control?

Manage your food moods with biology and beat the gym binge

114 Sugar side show

Hangry? Give your blood sugar the once over.



76

Erosion explosion



110

Diet break

REGULARS

84 Raw Fitspo

(nitpick free zone)

116 BodyBlitz Grand Champion

122 Backpage Hero

54

Getaway clinic



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This Issue's

DIGITAL CONTENT



VIDEO CLIPS

89 Why you need a yoga retreat

102 Healthy global cuisine



89

1 Deepen your practice



102



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I don't know about you, but for me travel's one of those things that goes on a kind of might-do list – might do if they work out how to clone people or if you realise you're an heiress to Nigerian nobility (tell me you keep getting emails about that too?) As an armchair traveller, I'm shocked that I'm filing this six weeks early to allow for a round-the-world trip. Sure, it's 3.35am and I'll be burning the candle until I leave, but suddenly taking a break seems less like a luxury and more like a necessity. It's a very first-world view, since in many places putting food on the table and avoiding disease is a daily struggle – but it's relative (and besides, we're talking a 35-buck Bangkok hotel, not the Grand Hyatt). While I'm looking forward to refining my downward dog

in Thailand, diving into Berlin's creative scene and catching up with colleagues in New York, I think the essential point of peregrination is distance. No amount of meditation or re-framing can provide the macro lens that globetrotting can because, on the fly, even pedestrian aspects of the daily grind (and by grind I do mean working out which gallery to visit) can capsize a world view you'd otherwise take for granted. There is probably an insight premium with trips that showcase less salubrious lifestyles – why do the friends eating rice on the side of a grotty *soi* seem so happy? But even having to look up a phrasebook to order a latte can halt automaticity and query which bits of your actions are habit and which are choice. (I'm sold. You?) If your annual leave count permits, you might want to check out our guide to the world's best health, fitness and pamper retreats – how about a bootcamp with a cultural twist in Bali or a luxurious all-girls surf camp? If you're not endowed with time to jet set, there are many ways to venture beyond the surface of experience without leaving home. In this issue we've provided a roadmap for fitness motivation and getting the best from your body by learning its buzz times. There are also plenty of physical journeys just waiting to be taken; aside from revealing new muscular frontiers (next stop, popping abs), Tiffany Gaston's plyometric workout will take you higher than Mary Poppins' kite (cop those endorphins). What real and metaphorical journeys have in common is that they easily oblige the story of 'can't', for lack of time or money (by the way, check out our part-time diets). If you are tempted to say you're too busy/poor/tired, might I suggest pairing your herbal tea with our yarn The Yes Paradox? I think it might help.

Wishing you an intrepid month,

Rebecca

Rebecca Long // Editor



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PRINTING

GRAPHIC IMPRESSIONS Australia Pty. Ltd.

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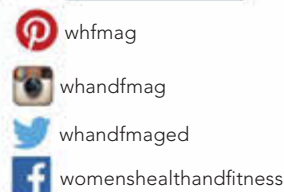


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25

Women with cosmetic breast implants are about a quarter more likely to incur a later-life breast cancer diagnosis than peers with natural boobs according to a research review published in the *British Medical Journal*. In women with implants, risk of death from breast cancer was 38 per cent higher. The reasoning goes that fake boobs made tumours harder to detect, leading to later diagnoses and poorer survival odds. Silicone renders mammograms less effective due to the lack of squish factor and shadows from implants may obstruct doctors' view of tumours on X-rays, experts said.

Mouth immunity

Collagen doesn't count, but having naturally prominent lips could safeguard you from winter lurgies according to a University of Iowa study. The good news continues for those with big noses. Thinking goes that vast lips and shnozzes obstruct airborne bacteria and dust particles. Bigger breathing apparatus also equals lower aspiration efficiency.



DUMBED

UP

SO MUCH FOR USING THE LONG-HAUL FLIGHT TO BASH OUT AN IMPRESSIVE REPORT. ACCORDING TO A KING'S COLLEGE AVIATION PROFESSOR, THE LOWER AIR PRESSURE AT ALTITUDE DIMINISHES BRAIN PERFORMANCE BECAUSE THE PRESSURE REDUCES THE AMOUNT OF OXYGEN YOU CAN EXTRACT FROM THE AIR. SAVE THE CEREBRAL TASKS FOR TOUCHDOWN.

The percentage of pregnant women with a tendency to develop vein blood clots (thrombophilia) according to a 12-year study published in *The Lancet*. The research found that anticoagulant injections prescribed for vulnerable women could in fact increase bleeding and induced labour rates. For women with thrombophilia, blood thinners after delivery are essential to prevent blood clots.

10

IT'S A THING

BREAST MILK MARKET

Yes, you can buy human breast milk online. No, you shouldn't. While milk sold through so-called 'milk banks' is screened for diseases, pasteurised and properly stored, Internet milk can pose a risk to infant health according to a paper published in *The British Medical Journal*. In earlier research, 92 out of 101 samples had bacterial growth.



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KALE RECENT

Cancel the scathing critique of kale mania. The smoothie hero du jour is being praised for its capacity to slow cognitive decline due to its vitamin K, lutein, folate and beta-carotene quotients. Fellow leafy greens collards and mustard greens were also lauded in a five-year study of more than 950 older adults at Rush University Medical Center. Participants who ate one to two servings a day had the cognitive ability of a person 11 years younger than those who ate none.

ADVANCED VERSION: Add brightly coloured fruits and vegetables for extra serves of the hero nutrients.



70 THE PERCENTAGE OF DIETARY INTAKE FROM PLANT SOURCES LINKED TO A 20 PER CENT LOWER RISK OF DYING OF HEART DISEASE AND STROKE COMPARED TO LESSER VEGOS IN A STUDY OF HALF A MILLION EUROPEANS PRESENTED BY THE AMERICAN HEART ASSOCIATION. PLANT FOOD GROUPS INCLUDED VEGETABLES, FRUIT, BEANS, CEREALS, POTATOES, NUTS AND OLIVE OIL.



Bicarb focal

Next time you're tempted to leave the bicarb soda out of your home-baked bikkies (bloating and all), consider the impact on your peepers. The common baking ingredient could improve ability to track moving objects by stimulating an enzyme and opposing the effect of light according to a study published in the *Journal of Biological Chemistry*. The finding could herald new treatments to slow progression of eye diseases, researchers suggested.



THE STICK: Bad cholesterol creep
THE FIX: Eating one avocado a day as part of a moderate-fat diet could help to improve bad cholesterol (LDL) levels according to research published in the *Journal of the American Heart Association*. In a study of overweight adults aged 21 to 70, a moderate-fat diet including a daily avo, which yielded 17 per cent of calories from monounsaturated fatty acids, or MUFAs, outpaced a low-fat diet minus avocado (11 per cent of calories from MUFAs). The clincher is replacing saturated fats with MUFAs as saturated fats are thought to increase cardiovascular disease risk.

TRY IT: Can't stomach smashed avo with vegemite? Don't blame you. Try it as a spread on toast instead of butter or turn it into guacamole to dip your veggie sticks, serve as a dip with plain reduced salt crackers or mix into salad in lieu of dressing.



JUDGE AND JURY

The defendant: Meal timing

The case: Eating later in the day and into the night synchs with greater odds of heart disease than daytime noshing.

The defence: Limiting the time span during which you eat could prevent age- and diet-related heart problems according to new research published in journal *Science*. Genes responsible for the body's circadian rhythm are integral to the process, researchers reported.

The verdict: Fruit flies on a 12-hour time-restricted feeding schedule for three weeks slept better, experienced less weight gain than those eating over 24 hours and had healthier hearts despite comparable food intake.



PHOTOGRAPHY: THINKSTOCK



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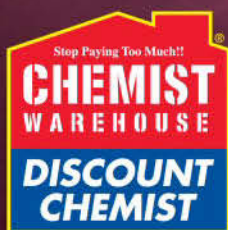
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RAW WAR

IF THE AIRPORT FOOD PRICES SET OFF YOUR NO-FREAKING-WAY ALARM, THROW ONE OF THESE WHOLEFOOD CHOCOLATE-FLAVOURED SNACKS IN YOUR CARRY-ON. (DID WE MENTION CHOCOLATE?)

The Australian Superfood Co

The Wattleseed Husk and Cacao bar combines wattleseed husk, coconut, cacao, almonds and chia. 40g bar \$4.50, austsuperfoods.com.au
kJ: 620, protein: 3.1g, fat: 6.8g, carb: 19.5g

Naturally Nood

This Cocoa Lamington Naturally Nood bar reminded us of Possum Magic (we can't be the only ones) and Mauritius in one gooey wholefood mouthful. It's not strictly raw, but it is based on a healthy mix of wholefoods including cashews and dates with a bit of fruit and cacao. 35g bar \$2.80, naturallynood.com
kJ: 679, protein: 2.7g, fat: 7.9g, carbs: 18.7g



The Bar Counter

We're all over the range's protein incarnations, but the Raw Chocolate raw food bar is especially seductive. Made with nothing but dates, cocoa, almond paste, walnuts and cashews, it's the perfect departure-lounge snack. 40g bar \$2.85 at Coles, thebarcounter.com.au
kJ: 610, protein: 2.7g, fat: 5.7g, carbs: 22.1g



BELLISSIMA BREW

Whether you're spending Saturday morning in Newtown or Napoli, do coffee like the Italians with a super-portable coffee maker designed with roaming coffee snobs in mind. Handpresso uses E.S.E (easy serve espresso) pods or fresh ground coffee and – assuming you've got hot water – lets you make your espresso just as you like it. The Handpresso WILD 'Hybrid' is the latest in the Handpresso collection.

\$179 from
thedesigngiftshop.com

Lazy lunch

Better things to do than make your lunch (or too busy making kids' sangas and beds to deal with your own)? John West has solved half the problem. They won't do hospital corners, but these new lunch-sized tuna meals with brown rice and quinoa have done the hard nutrient balancing work. Microwavable, they're made for eating straight from the tub. What excuse? \$4.39 at independent supermarkets



DIP IT GOOD

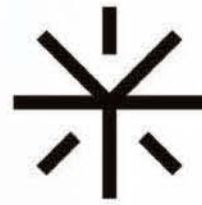
Cheaper than a round-the-world ticket, Chris' new Down2Earth dips provide an overseas palate trip and make it easy to get your five veg serves a day, turning celery sticks into flavourful crudités. In four exotic flavours including spiced roasted carrot and turmeric:

\$4.59 at Woolworths,
chrisdips.com.au



13

The percentage of Australians who say they never eat fast food according to recent Roy Morgan research. They also found that vegetarians and people who avoided dairy were less likely to swing by the drive thru than most of the population.



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- assisting energy levels

Dr Nat

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Coffee kick

Downing a latte after eating a high-fat meal could inhibit your body's ability to deal with that arvo muesli bar, soft drink or wine.

In a study at the University of Guelph, participants who drank caffeinated coffee after a fatty meal experienced double the blood sugar spike from the meal alone. Even drinking two cups of coffee five hours after a fatty meal correlated with a 65 per cent greater spike in blood sugar from a sugary drink. Fat and caffeinated coffee impair communication between the gut and the pancreas, interfering with the body's ability to clear sugar from the blood, experts said. Elevated blood sugar has been linked to metabolic disease risk.

65 To 80%

The percentage of the average daily 2,000 calorie quota used up by a large cheeseburger meal with fries and a regular cola according to data from an 18-year audit of fast-food composition.

That's not much left for dinner! Worse news, discrepancies between fast-food chains' recipes could also cause consumers to inadvertently down more kJs than they bargained for. Fries can differ by 110 calories per serve. Over a year, a daily 100-calorie surplus translates to 4.5 kilos of body weight.

LEXICON

Glucose oxidation

The metabolic process that can be interrupted by just five days on a high-fat diet even without a caloric surplus or weight gain. Beware the all-inclusive yay-cay package. The blame goes to muscles, which respond to a few days' fat overload by changing the way they process nutrients (geek speak: glucose oxidation), favouring longer-term weight gain and other health issues according to an article in journal *Obesity*. In the study, participants overshot the recommended daily 30 per cent fat intake by 25 per cent. The jury's out on how quickly the effect can be reversed with a lower fat diet.



The fix: Play slow music, which can cause you to automatically apply the fork brake. The kicker is that the music needs to be slower than your regular noshing tempo.

Spotify This: Miles Davis' Kind of Blue



20

The days of diet compliance per month that correlated with observable change in a three-month study tracking subjects' weight loss against diet-related tips and adherence.

Translation: you can afford to back off the unforgiving food rules already. In a Cornell Food and Brand Lab study, participants who received environmental tips (you know, rearrange the cupboard or downsize your plate) logged two days' more compliance than those who received tips on eating behaviour and food choices. Broad environmental changes that promoted healthier food choices were easier to make than resisting mac 'n' cheese 14 times a week. Repeat: there is no such thing as falling off the wagon.

MAX THE MATH

If you only change one thing, make it your environment.



- Use smaller dinner plates
 - Keep high-calorie foods out of sight
 - Turn off the television, computer and mobile phones at meal times
- Visit mindlesseat.org for more accidental weight loss tips.

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OLD V NEW

BENCH PRESS

OLD WAY:

The bench press is an excellent way to work on your upper body strength, especially if you're after perky pectorals (aka: boob muscles). Traditionally it involves lying horizontal on a bench with your hands wide on the bar, lowering said bar until your elbows are at bench height and, using a combo of pectoral, shoulder and arm muscles, pressing the weight up to its original height (and repeating).

NEW WAY:

New research published in the *European Journal of Sports Science* found that tilting the bench to 30 degrees better promotes muscle strength and development of the pectoralis than lying horizontal (zero degrees) or at 15 or 45 degrees. A flat bench results in lower muscle activation.



RUN GLOBAL

Need some shoes to a) take on vacation or b) take you on vacation? New Balance has just released two exotic designs named after some of the world's most unique islands – think Zante (Greece) and Boracay (Philippines). Each design is tailored to helping the wearer master terrain native to namesake locales. Dream.



ZANTE: Get a taste of Greece's fast-paced party lifestyle with a shoe designed for the fast-paced runner looking to meet and beat personal bests. They're pink, they're popping and they'll help you go the distance. \$150



BORACAY: For those who like to run on 'island time', this shoe is a little more chilled out, i.e. designed for neutral running, featuring a soft plush upper and a lower-to-the-ground running shoe, ideal for any workout or wardrobe! \$150, newbalance.com.au

TOP 4 MOVES TO DO INDOORS:

HOTEL GOT A DODGY GYM OR LOATH TO LEAVE THE LIVING ROOM? LUKE HEATH (LUKEHEATHFITNESS.COM.AU) HAS SHARED HIS TOP FIVE MOVES FOR MAKING THE MOST OF THE GREAT INDOORS.

1 BURPEES: "Burpees increase your heart rate and burn serious calories while achieving amazing tone," says Heath.

Do it: "Crouch down, then jump your legs out to the plank position and quickly jump the legs back in and stand or jump back up for that extra hit of cardio."

2 DYNAMIC LUNGES: This one is for the booty and pins (did someone say skinny jeans?)

Do it: "Step into a lunge position with your feet hip-width apart. Lower yourself down into a 90-degree front leg, back leg lunge position. Then rise, pushing through your legs, off from the heel of your foot and return your feet side by side."

3 UNDERHAND GRIP TOWEL ROWS: Tone your arms, back and tummy.

Do it: "Sit on the floor and wrap a towel around the backs of your feet, gripping each end in your hands, ready to use your legs for resistance. Push your feet away from your body with just enough pressure so you can pull the towel towards your chest then squeeze your shoulder blades together."

4 PLANK: For a flat tummy and a strong core.

Do it: Place forearms on the ground and align your elbows with your shoulders and arms parallel to your body, making sure that arms are shoulder-width distance apart.

The Luke Heath fitness app is free at iTunes.

McRECOVERY

While we've been counting almonds and swilling protein shakes, scientists have been off proving that fast food is good (or at least not bad) for recovery. A new study published in the *International Journal of Sports Nutrition and Exercise Metabolism* found no significant difference in glycogen recovery between elite male cyclists who chowed down junk food and those who ate sports supplements. But caveats apply: participants consumed only 1.54 grams of carbs, 0.24 grams of fat and 0.18 grams of protein per kilogram of body weight. That's 92 g of carbs, 11 g of protein and 14 g of fat if you weigh 60 kg – equivalent to roughly half a Big Mac and maybe 7/8 of a large Coke (what...no fries?). In the interest of avoiding a fast-food-fest, we'll be sticking to our WPIs.



Including Vida Glow into your daily diet will help stimulate the body's natural production of collagen, as it works from within to rebuild and strengthen the collagen matrix below the skin's surface, thereby increasing elasticity, hydration and firmness in the skin.

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Exotic facials

Whether you're on a global escapade or just in Sydney for the weekend, few holidays would be complete without a trip to a spa. For fearless facial addicts, some of the more exotic treatments out there might take your fancy. Dr Joshua Zeichner, assistant professor in dermatology at Mount Sinai Hospital (New York) talks us through the fad and fab of exotic facials:

BEE VENOM FACIAL

The idea is that bee venom has properties that stimulate the production of collagen within the skin. Hopefully without the sting!

Dr. Zeichner says: "Bee venom facials might be more effective than traditional facials since they have the potential to impact the skin's ability to make collagen as opposed to just hydrating the skin or removing dirt and oil, although an over-the-counter topical retinoid will do the same thing."

BIRD POOP FACIAL

This exotic beauty treatment uses the sanitised droppings of Japanese nightingales (that are fed a specialised diet) mixed with rice bran for the purpose of exfoliating and brightening the skin. The droppings contain moisturising urea and an amino acid called guanine, thought to give fish scales their shine.

Dr. Zeichner says: "Exfoliating treatments, such as microdermabrasion or glycolic acid exfoliation, paired with traditional moisturisers are proven to be more effective than bird poop facials in brightening the skin."

PLACENTA FACIAL

This treatment uses a serum derived from sheep placenta that some believe can brighten and tighten the skin. It's high in proteins and growth factors, which are ingredients shown to stimulate collagen and protect the skin from UV light and pollution.

Dr. Zeichner says: "Using over-the-counter cosmeceuticals with ingredients such as antioxidants, like retinol and peptides, or alpha and beta hydroxy acids are also proven to help brighten the skin and stimulate collagen." And without the ick factor too.



There's something ironic about cramming all your gorgeous beauty products into an ugly cosmetics bag. How about ditching your dour travel accessories for something a little more statement, like this floral cosmetics case from Tonic Australia. Oh, and did we mention you can get a shower cap to match? Check out the range at tonic.net.au

Clay cleanse

If you're accustomed to slimy, harsh and rock-hard soap bars, then this little number from Theseeke is going to blow your mind. Made using a combination of pink French clay and Australian ivory clay, this luxurious all-natural cleansing bar is designed to gently draw the dirt and who-knows-what-else from your pores. It's also got shea butter for moisture, rose geranium for balance and cold-pressed lemon oil for added antibacterial properties. Soap just got seriously good. \$11.95, theseeke.com



QUICK FIX

The stick: No time to touch up your face when travelling. Have you ever tried applying eyeliner on a bus? One word: dangerous.

The fix: Time and travel proof your made-up visage with Urban Decay's new All Nighter Makeup Setting Spray. Unlike old school stick-your-face-down products, this one is designed to let your skin breathe while preserving your look. It lasts for up to 16 hours (roughly a flight to Europe), even if it's hot or humid (fresh-faced travel selfies, tick). Available in a handy travel size: \$22 for 30ml, mecca.com.au



PHOTOGRAPHY: THINKSTOCK



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A newfound 'window of vulnerability' to sexually transmitted infections (STI) could let us schedule sex to reduce the risk of infection according to a review of the role of sex hormones in reproductive health published in *Nature Reviews in Immunology*. All aspects of the immune system are precisely regulated by sex hormones estradiol and progesterone, which are secreted during the menstrual cycle and determine susceptibility to STIs, experts found. The 'window of vulnerability' could also predict optimal fertility timing.

PILLOW TALK

Reckon you and your significant other don't have enough D and Ms? Stop boozing before sex. Alcohol opposes the pro-social hormone oxytocin, which floods your brain after orgasm and was credited with promoting sharing important information during post-coital communication in a University of Connecticut study. While oxytocin increases trust and reduces stress hormone cortisol, alcohol has an antagonist effect, promoting superficial pillow talk. At best, orgasm could counteract the anti-trust effects of alcohol, but being toasted and failing to reach the big O is a recipe for negative post-sex communication.

FIRST-WORLD FIX

Become better looking

Forget stocking up on concealer and high-end cheek stain – increasing your attractiveness may be as simple as drinking a glass of vino according to a study at Bristol's School of Experimental Psychology. In an experiment appraising evaluations of photos of people who had consumed the equivalent of one or three glasses of wine, those on a single were rated as more attractive. Researchers suggest that the relaxed mood and facial flushing bestowed by a tippie could translate to greater appeal.



IT'S A THING

SLIDING VERSUS DECIDING

The difference between passively drifting into premarital cohabitation and actively deciding to move in together. Sliding was associated with greater risk of marital unrest down the track according to a University of Denver family studies research professor. In past studies, people who said they'd decided rather than slid reported greater marital quality later. The process of making a decision – about when to have sex, moving in together, getting engaged or having a child – prepares couples to make stronger commitments with better follow-through, experts said. It could also be that those who had deliberately decided to shack up were better at talking about transitions, study notes suggest.

14

The percentage by which each additional hour of sleep increases the likelihood of sex according to a study published in *The Journal of Sexual Medicine*. By examining the influence of sleep on sexual response and activity in 171 young women with at least one sexual partner, researchers linked sleep duration with higher desire, genital response and likelihood of sexual activity. Conversely, sleep disturbance could contribute to sexual complaints, authors concluded.

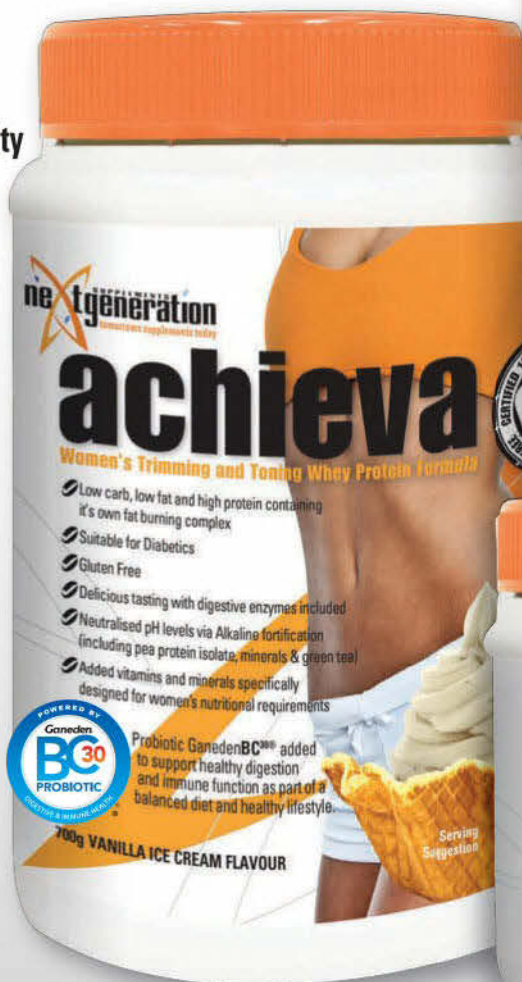
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Siesta smarts

If the boss is loath to invest in sleep pods, here's carte blanche to make like the Spanish and take a cubicle nap. A 45- to 60-minute power siesta could consolidate what you've just learned according to a study at Saarland University. Power naps influence memory performance. Sleeping for 45 to 60 minutes produced a five-fold improvement in information retrieval from memory, researchers said.



5-MINUTE FIX

THE STICK: You struggle to come up with creative solutions

THE FIX: Improve your fun fitness. Playful adults are more likely to be creative according to a University of Cambridge ethnologist, whose research suggests that play is an effective mechanism for encouraging creativity since creativity also involves eschewing established patterns of thought and behaviour.



HEAD HACK

FEEL CLEVER

Okay, so Internet intellect illusion's not a recognised cognitive bias, but it should

be after research found that searching the web for information makes people feel smarter than they are. According to the American Psychological Association, people who found a piece of information online rated their associated knowledge higher than those who were given the info. Oh, here's our web link, womenshealthandfitness.com.au

If you're off to Paris, good for you. If you can't make it out of Sydders, Melbs or Bris-vegas, Lonely Planet's new mix-and-match *Make My Day* guidebooks are the next best vicarious thing. With the flip-book design (remember the bird with the elephant body?) you can line up more than 2,000 combos of morning, arvo and evening activities for Barcelona, London, New York, Paris, San Francisco or Tokyo. You also get free access to an iPhone and Android app. \$24.99, lonelyplanet.com/makemyday

FUN HACKS:

- » Next time you see kids rolling down a hill, join them.
- » Hit the magic shop and take pictures of yourself wearing stupid glasses and a mo' – and Facebook it. And if you're invited to a costume party, go for maximum ridiculousness (it's the people in jeans who look silly anyway).
- » Host a PJ party, watch *Grease* and don't spare the pillow fight.



INSIGHT

AHA MOMENTS

Wonder what's happening when logic gives way to a left-field solution? Good news. You don't need to be looking for a better modus operandi. New research in journal *Neuron* reveals that specific brain signals can predict aha breakthroughs minutes before participants become aware of their ingenuity. Basically the prefrontal cortex stimulates alternative strategies in the background while behaviour remains aligned with original thinking. The big news is that participants weren't told there was a

better strategy, meaning the behaviour change reflected a spontaneous internal process. Any minute now...

Takeaway: Lighten up. Being too focused on a task can lock rigid thinking and blind us to alternatives. "The brain has evolved mechanisms that filter that information in a way that is useful for the task that you are doing. But the filter has a disadvantage: you might miss out on important information that is outside your current focus," said author and Princeton research associate Nicolas Schuck.

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QUICK FIX

The stick: The time until you pick up the new couch/go to the KISS concert is dragging

The fix: Imagine a shorter distance between where you are now and where you'll be then. That's the conclusion of research published in the *Journal of Consumer Research*. Perception of time changes to match imagined spatial distance according to experts, who found that people who imagined visiting a far-flung destination perceived wait time to be longer than those who imagined it was around the corner. It also works for stuff you don't want to do. Imagine your dentist is in Dubai.

18

The percentage of young adults interviewed who experienced exploding head syndrome in a recent study at Washington State University. Sufferers are woken by abrupt loud noises and can sense an explosion in their head. More than a third of sufferers also experienced paralysis upon waking. Researchers suspect that the disorder, which kicks in during the onset of sleep, stems from problems with the brain shutting down – much like when active programs in the background stop your computer from switching off.

NEUROLINGUIST

Body-focused repetitive behaviours

Pulling your hair, picking your skin and biting your nails all qualify for the term describing body-related behaviours that seem to deliver a sort of reward. It's more common in perfectionists who are easily bored, frustrated or impatient by not achieving their goals quickly enough or at all according to researchers at the Institut universitaire en santé mentale de Montréal and the University of Montreal. Participants with body-focussed repetitive behaviours reported a greater urge to engage in these behaviours when bored or frustrated.

PROBIOTIC UPPER

The walkie-talkie system between your main thinking organ and the one in your gut (often called the second brain) has led researchers to find that supplementing with probiotics could stop sadness from morphing into depression by steering attention away from negative feelings from the past (a.k.a. rumination) – one of the surest markers of depression vulnerability. In the study, popping a multispecies probiotic for four weeks appeared to curb cognitive reactivity, which is the tipping point between sadness and depression according to Leiden Institute of Brain and Cognition researchers.

TRY IT: A sachet to take with water or milk every day.

Leader board

Been appointed to head up a group project? Here's what's happening in your noggin. The activity in your brain's left temporo-parietal junction (the bit that represents others' mental states) begins to synchronise with that in the same area of your followers. Yep, exactly like your phone with iTunes. How well things synch depends on how often the leader says the right thing at the right time according to new research. Speaker beware: results showed that the brains of group members synched or not (geek speak: interpersonal neural synchronisation) before the end of a discussion.



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Raw fermented paleo protein is a delicious wholefood formula combining a nourishing sprouted base with fermented seeds and greens. This blend contains superfoods such as Peruvian sacha inchi, fermented spirulina, quinoa and chia, creating a comprehensive paleo-friendly protein. Vegan and grain-free, **Raw fermented paleo protein** provides high levels of amino acids essential for muscle development and body function.



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Fighting Facebook

Resist the thrill of the Facey-stalk. Recent research has shown that ogling friends' highlight reels can work against joy in the long run. The study, published in the *Journal of Social and Clinical Psychology* found that "people feel depressed after spending a great deal of time on Facebook because they feel badly when comparing themselves to others".

The solution? Dr Bree Abbott, psychologist and expert in positive self-perception, suggests:

- 1 Ask, "Am I being fair to myself?" Are you trying to compare yourself to someone in completely different circumstances to yourself?
- 2 Have some self-compassion, be kind to yourself and have gratitude for your own 'best moments' no matter how simple they are or regardless of whether people 'like' them or not.
- 3 Finally, if all else fails, turn it off! Take the Facebook app off your phone and be present in your real life and see how many 'best moments' you create with your head up.

BRING THE ^{zzz} SNOOZE

Do you find it hard to fall asleep when you're not in your own bed? Travel can be rough on even the most resilient sleeper, and the cognitive fails can be dire (like catching the wrong ferry). A portable and oh-so-chic solution is Sleep Plus Deep Sleep Pillow Spray from This Works. Spritz your pillow with it and inhale a combination of essential oils – such as lavender, chamomile and vetivert –

blended to soothe your mind and body and help restless sleepers achieve a solid night of snooze. \$48, available from mecca.com.au



Bottle lamp



If your goal in life is to shine light wherever you go, this little gadget will get you have way there. (Literally, not figuratively, of course.) This pocket-sized light turns any empty bottle into a lamp – perfect for adding a romantic glow to campsites or even the kitchen table without the inconvenience (read: fire-hazard) of candles. And rechargeable, so there is no chance of your light burning out. You also get kudos for recycling! \$24.95 biome.com.au

QUICK FIX

The stick: Bad day. Don't want to talk about it.

The fix: Smile. It's probably the last thing you want to do right now, but a recent study published in *Social Cognitive and Affective Neuroscience* has found that when you smile, you actually perceive other people's emotions as happier. The study looked at electrical energy in the brain that spikes when you look at someone else's face and found that, when smiling, the brain's reaction was the same looking at a neutral face as it was when looking at a smiling face, meaning that the brain (at least partially) processed the neutral face as though it were smiling.

YOGA FOR AFRICA

Never mind the gripe with the word 'pant' (singular). These limited edition 'legging' (ridiculous, right?) will brighten the studio and support community yoga projects in Africa. Liquido Active are supporting the Yoga for Africa project, helping to spread the word about the wellbeing perks of yoga to communities in East Africa. \$85 from liquidoactive.com or africayogaproject.org.






YOUR BEST
LOVE IT

SIGNAL

FAULT

Your whole body is a series of signals travelling along endless confusing pathways. We look at what these often painful signs are trying to tell us.

Words: David Goding



Neck pain, dry mouth, runny nose, green eyes and a stabbing pain in the upper right buttock? What do these outward, often awkward, signals from the body really mean?

Are they suggesting something deeper? Is this merely a hint to the real cause? And can this aid in real treatment, targeting the root of the problem rather than just relieving the symptom?

"Your entire life story is held within the library of your cells," says Steve Sisgold, author of *What's Your Body Telling You?* "Your body speaks to you directly in the language of sensations, most notably primary feelings, such as tension, temperature changes, butterflies, nausea, headaches, changes in breath – even a rush of elation."

And we talk back to the body, resulting in unique sets of feelings, body signals and, yes, pain.

"Pain is a very subjective experience," says Angela Sehgal, athletic trainer and author of *Where It Hurts and Why*. "Each person perceives his or her own pain differently. How pain affects a person is influenced by their emotional and mental attitudes, earlier experiences with pain, other health conditions, and even spiritual beliefs. Often, both physiological and psychological factors must be addressed to alleviate pain."

In technical terms you have tingly pain, stabby pain, achy pain, delayed pain, referred pain, monstrous monthly pain, and pulsating random pain that disappears in the doctor's waiting room.

Broadly they fall into two basic categories – acute and chronic.

"Acute pain is like a sudden burst or explosion of sensation, stemming from an injury such as a sprained ankle or a stubbed toe," explains Sehgal. It happens quickly and causes severe or sharp pain that usually dissipates in a short period of time. Acute pain resolves faster than chronic pain because the inflammation-and-pain cycle elapses much more quickly and without complications.

"On the other hand, chronic pain, such as arthritis, is like uninvited company: it hangs around for a long time and sometimes never goes away. Chronic pain lingers because of several factors, including severity of the injury or illness, inaccurate diagnosis, inadequate treatment, poor physical, mental, or emotional state, and a prolonged cycle of inflammation, pain and spasm.

But in the end it all boils down to one thing. Pain is the brain's fault.

The pain-brain connection

Your brain manufactures pain with your own best interests at heart. True. In fact, without it, we could be in a whole lot of trouble. Not that you'd feel it.

"The brain comprehends the sensation from afferent nerves of pain and initiates a protective action to minimise or stop the sensation," explains Dr Andrew Edwards, associate professor at James Cook University's Institute of Sport and Exercise Science.

"The brain therefore acts as a 'central governor' during exercise to make sure we do not unduly hurt ourselves

and so it limits our performance. It does this by manipulating how much muscle we can recruit during exercise, so when we are feeling pain, our brain reduces the stimulation it provides to muscles and so we recruit less muscle and start to slow down.

"This is a subconscious process. In the presence of pain it is very difficult to override this protective function of the brain."

Illustrating the incredible power of the mind to give us pain is the brain's bizarre invention of phantom pain – where a person feels pain in a limb that is not there. Incredibly, the reported rate of phantom limb pain in amputees is around the 80 per cent mark.

Working on behalf of the brain are sensors on the skin called nociceptors, which in turn come in four separate forms – mechanical (responding to pinching, cutting or stretching, etc), chemical (responding to irritating substances), thermal (responding to extreme temperature changes) and polymodal, which are the ultimate show-offs as they can do all of these jobs better than the others.

But there is another, often disputed, insidious nociceptor (key scary music) – the dreaded silent nociceptor.

"These receptors lie in wait and are activated by chemicals released during the inflammatory process," explains Douglas Nelson, neuromuscular therapist and author of *The Mystery of Pain*.

"When silent nociceptors come online, they and the mechanosensitive nociceptors have a dramatically reduced threshold to movement and pressure. For example, imagine straining your knee during a fall. Before the trauma, you could painlessly jump up and down with no reaction to the increased pressure in the joint. After the trauma, the reactive threshold of the mechanoreceptors and newly recruited silent receptors is lowered so much that taking a step with the injured leg is painful."

"These nociceptors are now responding to extremely small stimuli, a much exaggerated response."

The result, in short, is more pain.

Mind over painful matter

Just as the brain creates pain, it can take it away by distracting all these overenthusiastic pain receptors and closing the 'gate' on pain. It's a lot harder work and can take a bit of effort, but it's worth the effort.

"If enough 'noise' is coming from other sources, it can reduce the signals relayed from the pain fibres up the spinal cord," says Renee Goossens,

author of *Pain Management – Learning to Live with Pain*.

"This is known as 'gating'. Think of a porter at the gate who closes it when there is a lot of noise outside, and you are getting close to the idea of gating. Gating is a useful model for understanding several of the treatments for chronic pain; for example, it may explain the benefits of TENS machines, acupuncture, Deep Heat and even rubbing your arm when you hit your funny bone.

"Pain from one part of the body also has effects on other parts of the body, with messages going up and down the spinal cord via 'relay' nerves. Don't be surprised when pain in one part of your body has effects on other parts, especially adjacent parts. Every osteopath knows that a problem in the neck can cause a pain in the jaw, although your doctor may be less likely to accept the idea."

In fact, referred pain, or referred signals, are happening constantly around the body all the time. It shouldn't be too hard then, with practice, to distract the brain away from one source of pain, effectively 'closing the gate' on that specific pain. Your brain is, after all, pretty busy engaging with the rest of your body.

"Conscious thoughts or sensations completely unrelated to the pain, such as the mental picture of yourself walking on a beach, or listening to a favourite Mozart concerto, can also run interference on pain and make the gate swing further closed," says Richard Laliberte, author of *Doctors' Guide to Chronic Pain Relief*.

This is where mindfulness comes into play. Several studies have concluded that a regular practice of mindful meditation can have a major effect on how you feel pain.

"There are two approaches to meditation that apply similar top-down approaches to pain modulation," says Nelson. "One approach, focused attention, is much like distraction. It works by concentrating the mind on one single stimulus to the exclusion of all others.

"The other, open presence, takes the opposite approach, which is not to focus on anything at all, only to observe that which passes in front of the mind with a spirit of detachment. The desired state of awareness is to experience stimuli without any emotional reaction. Dispassion is the key to keeping the brain from having an emotional reaction and thus interpreting the stimuli as noxious."



RECOGNISING THE SIGNS

SKIN



According to Dr Michael Elstein, integrative medicine specialist and author of *You Have the Power – Why didn't my doctor tell me about this?*, skin conditions such as dermatitis, psoriasis and acne often indicate a possible gluten intolerance or Candida infestation that is not immediately obvious.

Blemished skin could be the outward sign of stress, overheating or agitation. This in turn can aggravate an existing inclination towards eczema.

Very pale skin may indicate general ill health. If this complexion continues it may suggest the presence of anaemia.

Large brown spots that appear on the back of the hands as a result of exposure to the sun – sometimes called liver spots – are common in old age and generally harmless. However, if they appear prior to old age you should immediately get them checked by your doctor as there is a chance they could be malignant.

A blemish that grows larger, is dark, scaly, scabbing or has developed a raised edge may indicate the early stage of a skin cancer and should be examined by a doctor.



NAILS

The normal colour of our fingernails is pale pink. A yellow tinge to the fingernail can indicate that you have respiratory or liver problems. A green tinge suggests the possible presence of infection. Small black streaks are believed to indicate heart trouble. If your nails are of a bluish tinge, you could have a nasty condition called cyanosis, where blood is not properly oxygenated in the lungs. This can be the result of poor circulation or heart or lung disorder.

Our nails also provide us with a good indication of our nutritional status, including any deficiencies. Reddish-brown spots may display a deficiency of folic acid. White

lines across the nail can signal a deficiency of iron or zinc in the diet. Brittle nails can indicate that you have a vitamin A or calcium deficiency. Nails that break easily and have horizontal ridges may reflect a deficiency in B vitamins. Nails that appear bent back and spoon-shaped and have vertical ridges on them may be a sign of low iron levels and anaemia. White bands on your nails can indicate a protein deficiency.

White flecks on your nails are not due to any vitamin or mineral deficiency, as many people mistakenly believe, but are usually the result of a minor injury, such as a knock. The marks grow out in time.

HAIR

Hair loss is a normal part of growing older for many people. In most cases this means you are simply genetically predisposed to losing your hair at a certain age. But this is not always the case, particularly if you notice that your hair is falling out at a rapid rate.

Rapid unexplained hair loss could suggest that your body is reacting to an intense period of stress or trauma. Hair loss can also be the result of thyroid hormone deficiency or inadequate vitamin intake. In such cases the hair will regrow once you have addressed the problem and recovered.

Excessively dry, coarse or brittle hair could indicate that you have a vitamin A, zinc or silica deficiency. Or it may suggest that you have digestion problems. Oily hair can reflect a deficiency in vitamin B2. A deficiency in B vitamins, iron, selenium or copper can also contribute towards hair loss.

"Simple blood tests will identify excessive stress levels, nutrient deficiencies and hormonal imbalance while a hair mineral analysis can assess selenium and copper status," says Dr Elstein.



TONGUE

A white, 'furry' tongue can be the result of a big night out, in which case it should improve as the day progresses. If it lasts, it could be due to excessive acid in the stomach or the presence of the yeast *Candida albicans* in the mouth. If *Candida* is the cause, it is a good idea to have your urine tested for glucose as it may be associated with diabetes mellitus; however, it is perhaps more likely that a white, furry tongue is the result of poor dental hygiene and dehydration. Drink plenty of water, use a good mouth wash and make sure you brush and scrape your tongue of any remaining residue.

A tingling sensation on the tongue can be of great concern as this is often the first sign of an allergic reaction. The red spots on the back of your tongue are, however, not of concern. These are your large taste buds.

If you have a burning sensation on your tongue that persists, you could have burning tongue syndrome. This condition, which can also affect the mouth and lips, can continue for years. It may be associated with a variety of other conditions, including oral thrush, dry mouth, nutritional deficiencies and menopause, though the real cause is often difficult to pin down.



EYES

An eye examination is still one of the primary tools used by general practitioners to ascertain the general health of a patient as well as revealing the presence of a range of conditions, including diabetes, high blood pressure, cardiovascular disease and liver damage.

Of particular concern is the state of the blood vessels within the eye. Blood vessels that appear coppery in colour can indicate the presence of high blood pressure. Blood vessels that are bleeding into the back of the eye or have a ballooning effect at the ends is likely to indicate diabetes.

If the whites of the eyes appear more yellow than white, it suggests that your liver or gall bladder is not functioning well. It could reflect a build-up of bile, suggesting the presence of hepatitis. White spots on the top eyelids could mean that you have high blood cholesterol.

If the area immediately under the eyes appears grey or blue, it could signify that you have stressed or low-functioning kidneys. Alternatively, it could be the outward sign of poor sleeping habits or insomnia.



GUT

Bloating, abdominal cramps, flatulence and loose, frequent bowel motions or constipation could mean you've eaten too many artificial sweeteners – or maybe you're just stressed to the eyeballs. Stress plays a major role in irritable bowel syndrome, both in triggering and worsening symptoms, says Melbourne GP and author of *Doctor in the House* Dr Malcolm Clark. "Sufferers often report the return of their rotten symptoms when they are under increased stress at work or at home," he says. "Depressed or anxious people seem to suffer from this problem more often than the rest, suggesting these may also be causes."

"The nerve messages to the muscle walls are garbled and confused. The muscles are stimulated, but in a disorganised way and the bowel doesn't work properly. Sometimes the nerves send very strong impulses causing the cramping spasms typical of irritable bowel."

The solution to tummy chaos, then, could be more to do with the mind than the body. Meditation, for instance, can counteract the physiological stress response that contributes to symptoms, Dr Clark says. There is a role for addressing the gut directly by increasing fibre intake and scaling back fatty foods and alcohol, he says. "Fibre seems to aid the passage of food through the gut, as well as bulking up and softening the stools," says Dr Clark.

MIND-GUT DETOUR

A two-way convo between your head and gut has led researchers to blame transmission faults for many so-called brain glitches. Here's how to eavesdrop.

The directive to 'go with your gut' is more than a throwaway line from pseudoscience. Frances Dalton, a nutritionist and medical advisor for the MINDD Foundation, which promotes mind-body approaches in healthcare, says the gut is being recognised as the second brain.

"There are millions of nerve cells around the intestines, almost as many as in the brain," Dalton says. "This means the gut has the ability to process information about what is going on and put a response into action separate from the brain and central nervous system."

Intestinal nerve cells have similar conversations to those between neurons in the brain – using neurotransmitters as a kind of phone. There are around 30 neurotransmitters used by the so-called enteric nervous system, the same number as in the brain. The enteric nervous system employs more neurons than the peripheral nervous system and spinal cord respectively.

"Whatever affects the mind will in turn have some impact on gut function," says naturopath Lyn Craven. She calls this lifelong two-way convo 'gut instinct'.

The belly is also intimately linked to emotions and vice versa.

"People who are frightened enough, without question show gut problems," says the University of Melbourne professor of enteric neuroscience Joel Bornstein.

"That's the brain talking to the gut and the gut talking back to the brain, saying, 'I'm uncomfortable'.

Dalton says many conditions thought to be purely anomalies of the mind, like mental illnesses, are now being linked to the gut.

"Many of the so-called psychological problems people are faced with today such as anxiety, depression, and even more serious conditions such as schizophrenia and autism are related to problems in the gut," she says.

"Programs that work to heal these gut problems and address the resulting deficiencies are very successful in helping the majority of people with these types of disorders."


Gut bacteria may also improve general brain function, research suggests. In a UCLA study, women aged 18 to 55 who ate yoghurt containing

probiotics twice a day for a month exhibited decreased activity in two brain regions that control central processing of emotion and sensation.

They also showed greater connectivity between a region known as the periaqueductal grey and areas of the prefrontal cortex associated with cognition while those who skipped the probiotic showed greater connectivity of a different area.

Drawing on findings that most of the body's neurotransmitter serotonin resides in the gut, not the brain, Julia Ross' book and protocol *The Mood Cure* employs amino acids – the constituents of protein and precursors to neurotransmitters – to correct emotional fallouts.

"Your brain relies on protein – the only food source of amino acids – to make all of its mood-enhancing chemicals," Ross says.



"If you are not getting enough protein, you won't be able to manufacture those crucial chemicals."

Including protein in every meal is a good way to maintain adequate levels of amino acids – many of which the body can't manufacture ('essential amino acids'). Fish, eggs, chicken and beef contain all 22 amino acids.

The most popular type of antidepressants, selective serotonin reuptake inhibitors (SSRIs), like Prozac work by keeping whatever serotonin we have in our bodies active but don't actually provide additional serotonin, so many people continue to have low levels of this important mood-enhancing chemical.

Ross says that in some cases L-tryptophan (which serotonin is made from) can be an effective treatment for depression when taken in supplementary form. Other amino acid supplements such as L-tyrosine and GABA (gamma amino butyric acid) can also be effective.

Chronic fatigue syndrome (CFS) has recently been linked to unbalanced gut bacteria. According to research at the University of Toronto, low levels of Lactobacillus and Bifidobacteria in the gut could contribute to CFS symptoms. Gut bacteria communicates with the nervous system by way of the vagus nerves, so it makes sense that it can influence mood. The same bacteria also converse with the immune system, which largely resides in the gut.

"Research shows that patients with CFS and other so-called functional somatic disorders have alterations in the intestinal microbial flora," says Dr A Venket Rao, researcher at the Department of Nutritional Sciences at the University of Toronto. "Emerging studies have suggested that pathogenic and non-pathogenic gut bacteria might influence mood-related symptoms and even behaviour in animals and humans.

"We found a significant rise in both Lactobacillus and Bifidobacteria in those taking the Lactobacillus casei strain Shirota (LcS), and there was also a significant decrease in anxiety symptoms among those taking the probiotic vs controls."

Even certain symptoms of autism are now being linked to disturbances in gut bacteria. "There's good evidence that gut bacteria can upset behaviour, and that appears to be the case with autism," says Prof. Bornstein.

Fledgling research has shown that certain gut changes are exclusive to autism sufferers – although there's no suggestion that bad gut bugs cause autism.

"The kind of mutations we're talking about would change the response of the gut and the brain to even normal microbiome," says Bornstein. "You wouldn't need a particular bacteria to cause autism. What you have now is the gut and the brain responding differently to something that would have been there anyway." ■

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Perfect Timing

Burning the candle, working out when it suits, lamenting a mid-arvo energy slump... most of us behave as though our body clocks are ours to set. Note from the science of chronobiology: **not so fast.**

Words: Stephanie Osfield

Our lives revolve around time – time to get up, time to go to work or drop the kids at school, time to watch the evening news, take a lunch break or get to bed. We're also obsessed with the kind of time we want more of, such as quality time, 'me' time, time out and time off so that we can have more time on our hands and take more time to do the things that really give us pleasure. When we're stressed out we complain we were pressed for time, didn't have time to catch our breath or have been racing the clock all day. When we're not running behind we talk about making good time. But apart from wishing we had more hours in every single day, we rarely think about how other aspects of time impact on our physical and emotional health. The way you use, ignore or address time can impact on everything from your weight to your sense of satisfaction in life. So it's helpful to be savvy about how time warps your world in the long and short term.

Body Clock Blahs

Do you often stay up way too late watching *Game of Thrones* or *Orange is the New Black*, or fall asleep sprawled on the couch then find you can't nod off when you should be sleeping tight? You might think it's no big deal to ignore your body clock when it tells you it's time for some zeds, but the fallout can be huge. "The role of your body clock is to ensure that you sleep during the night and are alert during the daytime," says Siobhan Banks, senior research fellow from the Centre for Sleep Research at the University of South Australia. Trouble is that working overtime until late, suffering insomnia and staying up partying can all throw your circadian rhythm out of whack. "This can keep your body temperature raised, giving you 'stay awake' hormonal signals at the wrong time of day," Banks explains.

If you're sleeping less than six hours a night, this can cause a 40 per cent drop in sensitivity to insulin, which bumps up your risk of weight gain and diabetes type 2 according to research at the University of Chicago. In the research, this reduced insulin response occurred in otherwise lean and healthy young men and women after only three nights of less sleep. Don't underestimate the fallout. Studies suggest that people who sleep five hours or less a night weigh more, particularly in middle age.

Your waistline might also be paying for this body clock shift, known as 'circadian desynchrony'. According to Dr Cathy Wyse, from the chronobiology research group at the University of Aberdeen, who has studied this problem, the nightly disruption caused by light is scrambling the brain systems that regulate our metabolism and hormones such as insulin, increasing our risk of developing conditions like diabetes and obesity. "There are many factors contributing to obesity, but disrupted circadian rhythms should definitely be considered alongside the usual suspects of diet and exercise," Wyse observes.

TIMING TIPS:

• **SET GOOD SLEEP HABITS:** "The best way to maximise sleep is to keep a regular bedtime, ensure your bedroom is quiet, dark and a comfortable temperature (less than 23°C); and turn off your mobile phone/social media," says Associate Professor Greg Roach, from the Appleton Institute for Behavioural Science at the University of Adelaide.

• **REDUCE OVERHEAD LIGHTS:** Bright light at night should be avoided because it can shift your body clock to a later time, which can make it harder to fall asleep at night and harder to wake up in the morning. A more helpful approach? Set a bright light curfew – no overhead lights after six or seven pm. Install low-light globes in lamps and turn off unnecessary lights. If you need to get up during the night, use a low-light torch instead of turning on a lamp.

• **MINIMISE SCREEN USE AFTER DARK:** The bright lights from computers, television screens and other devices can interfere with your melatonin levels. If you must be on a computer, manually adjust the screen so the light is dimmed or install an app called f.lux, which adjusts the colour of your computer or phone screen to be less based on the time of day and more like the lighting in your room.

“
The way you use, ignore or address time can impact on everything from your weight to your sense of satisfaction in life.
”

Readjusting After Jet Lag

When you travel between time zones, your sense of time not only gets warped, your body clock and production of hormones gets completely out of synch with night and day. This may lead to symptoms including insomnia, exhaustion, concentration problems, disorientation, digestive upsets, headaches and irritability. "Jet lag can take days or weeks to resolve as your body gets back to the right rhythm," says Banks. "Meanwhile you have trouble getting out of bed and getting to sleep at night."

TIMING TIPS:

• SEEK MORNING SUNLIGHT:

"Spend about 10 minutes in sunlight every morning to help re-set your body clock to the new country," says Banks. Don't wear sunglasses during this short exposure – the light needs to enter your eyes in order to stop and start the right hormonal processes.

• PICK FLIGHT TIMES

CAREFULLY: Choose a flight that gets you in the afternoon/early evening and try to stay up until 10 or 11pm local time.

• RESET YOUR WATCH:

Set it to the right time at your destination when you're on a long plane flight there or home, so that while in flight, you can already start to adjust to eating and sleeping at local time.

• REDUCE STIMULANTS: Cut back on caffeine, chocolate and alcohol, which can all interfere with sleep and give energy drinks a complete miss.

• SOAK IN A TEPID BATH:

"Doing this about an hour before bedtime helps to drop your body temperature, which can make falling asleep easier," Banks explains.

Manipulating Melatonin

Melatonin is known as the 'sleep hormone' and is pivotal to the smooth running of your body clock. Though helpful in promoting fast onset of good quality sleep, the side effects of taking synthetic melatonin orally or intra-nasally in a herbal or synthetic form are still to be fully researched and understood. Some studies show excess melatonin can depress the immune system, suppress thyroid function and increase leukaemia and lymphoma in animals – so don't just pick up some online – make sure you consult a health professional before supplementing. "To boost levels naturally, try meditation (this stimulates the pineal gland) and direct light exposure early in the morning – this helps set your body clock and hormone production so that you have sufficient melatonin at bedtime," says Sarah Luck,

naturopath and natural health consultant with Doctor Earth in Bondi Junction, Sydney. Melatonin, which is produced at night in the pineal gland of the brain, has the following effects on health:

- » Regulating the sleep-wake cycle
- » Reducing jetlag
- » Protection of the mitochondria, the powerhouse of your cells
- » Improving concentration
- » Helping to keep blood glucose levels stable.

Boredom and Enjoyment

When you're bored, the clock seems to move at a glacial pace, but it seems to move at double speed when you're having a good time. Neuroscientist David Eagleman has been fascinated with these differing perceptions of time ever since he had a fall from a roof as a child and felt like he remembered every detail. In an article for *The New Yorker* magazine, he recently outlined why time sometimes seems to speed up or slow down. "Time is not like the other senses," says Eagleman, an assistant professor of neuroscience at Baylor College of Medicine in Houston. "Sight, smell, touch, taste and hearing are relatively easy to isolate

in the brain. They have discrete functions that rarely overlap: it's hard to describe the taste of a sound, the colour of a smell, or the scent of a feeling. But our sense of time is present in everything we do – whether we are going for a morning jog, listening to a favourite CD or getting ready for work." According to Eagleman, this is why we sometimes feel that time "stretches and compresses and skips a beat".

It's not just our sense but our emotional state that impacts on how we feel time. When you're under stress, you produce more adrenalin and cortisol and these 'stress chemicals' impact on your body and your brain. There

is clear evidence that adrenalin actually affects the rate of activity in the brain's neurons and some scientists now believe that this change in actual neuron function may be the reason why everything seems to slow down when something stressful is happening to us. A prime example is how people talk about their life flashing before their eyes when they have a car accident or how they felt like they saw everything in slow motion when having a heart attack or being swept away by flood waters. What happens is that the stress actually makes you pay more attention. When a researcher called Stetson conducted a study into time perception, he had people free-fall 50 metres into a net and found that being in potential danger made them remember more detail of the experience. This process of paying attention made time feel like it both slowed down but made the experience seem longer than it actually was.

Similarly, negative emotions can really make us zoom in on time so that it starts to feel longer than it is. That's why a boring lecture or conversation at a party or can seem to torturously drag on. On the flipside, when we're having fun we often feel that time flies because we are totally absorbed in what we are doing – so we might not notice how long we've been at the great party until we realise it's starting to get light outside. Research at the University of Alabama has found that when approaching an activity that we know is enjoyable, that anticipation and excitement can make time seem to speed up. When shown photos of geometric shapes or delicious desserts, people felt the shapes were shown longer than the sweets – because they desired to see the desserts for longer.

Familiarity can also make time seem to go at twice the speed. "This is often why we feel that time is speeding up as we get older," says Eagleman. "Time is this rubbery thing... it stretches out when you really turn your brain resources on, and when you say, 'Oh, I got this, everything is as expected,' it shrinks up." This helps explain why everything on a beach holiday seems to take more time – from the trip to get there to the seemingly long summer days.

TIMING TIPS:

• **SHIFT YOUR FOCUS:** When time is dragging because you're standing in a queue, enduring a humdrum meeting at work or waiting for a job interview, shift your attention. Do a short meditation where you focus on the breath or an object or recite song lyrics or write your shopping list in your head.

• **BE MORE MINDFUL:** When you are having a great night and want that wonderful feeling to last, try to experience what's happening through all your senses. Take mental snapshots of lovely moments so you can enjoy thinking about them later.

“
The best moments usually occur when a person's body or mind is stretched to its limits in a voluntary effort to accomplish something difficult and worthwhile.
”

Finding Your Flow

You know that great feeling when you're so absorbed in an enjoyable activity that you forget the time and lose yourself for a while? This state is known as 'flow' and it occurs when people are jogging or painting a landscape or playing a musical instrument, and studies show that it increases happiness. The term flow was coined by psychologist Mihaly Csikszentmihalyi, who has studied it at length. During a state of flow, you are focussed and free of worry and oblivious to time. Afterwards, you feel satisfied by your achievements and happier.

"Contrary to what we usually believe, the best moments in our lives are not the passive, receptive, relaxing times," says Csikszentmihalyi in his book *Flow: The Psychology of Optimal Experience*. "The best moments usually occur when a person's body or mind is stretched to its limits in a voluntary effort to accomplish something difficult and worthwhile. For a swimmer, it could be trying to beat his own record; for a violinist, mastering an intricate musical passage. For each person there are thousands of opportunities – challenges to expand ourselves. When we choose a goal and invest ourselves in it to the limits of concentration, whatever we do will be enjoyable. And once we have tasted this joy, we will redouble our efforts to taste it again. This is the way the self grows."

TIMING TIPS:

• **CHALLENGE YOURSELF:** Embrace some leisure activities that require a little level of skill and challenge, such as painting a watercolour, rock climbing or doing a complex jigsaw puzzle.

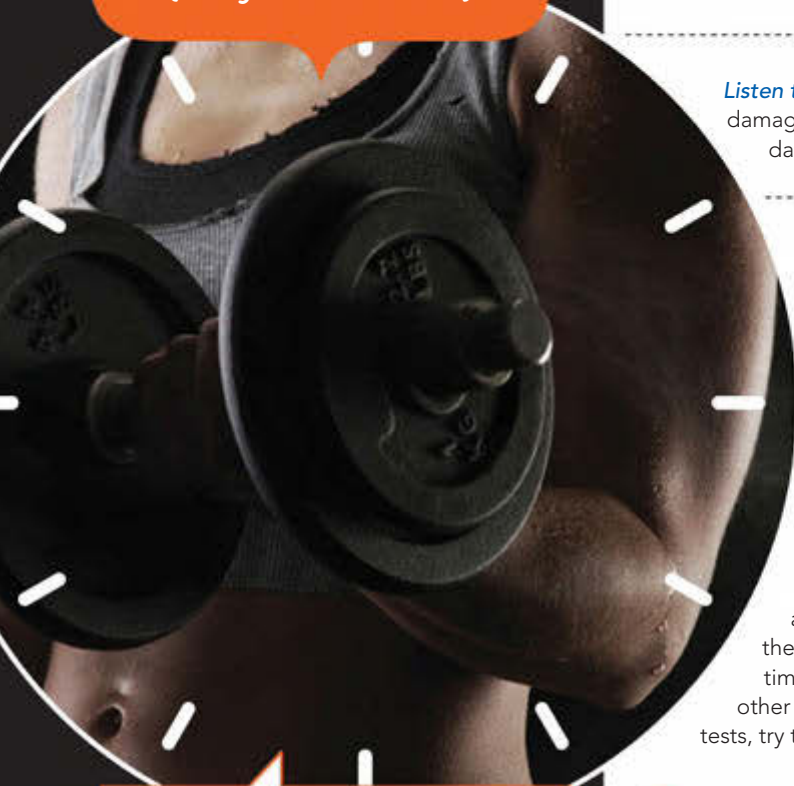
• **CHOOSE THE RIGHT TIME:** Engage in activities to create 'flow' when you are not having to rush somewhere and are least likely to be interrupted.

• **AVOID SCREENS:** Switch off your phone and the television and avoid any other distractions that may interrupt you.

• **LEARN A NEW SKILL:** Though this may not immediately create full flow – the 'sweet spot' will come as you improve and can relax into what you are doing. Learning the piano or a new language, taking up tai chi or writing a blog are all activities that will encourage the blissful state of flow, which promotes happiness and a sense of feeling fulfilled in life.

One perfect day

Plan your schedule according to scientifically defined BST (body standard time)



3PM – 6PM

Work out. The prevailing counsel to work out first thing in the morning to burn more body fat and minimise the risk of backing out after a hard day's slog has been overruled by a study suggesting that oxygen delivery (integral to fat burning) is lower at lunchtime than 5PM. Lung function was shown to be 17.5 per cent less efficient at noon than knock-off time in a study at New York's Albany Medical College. Working out within three hours of waking fails to take advantage of optimal blood flow, which sets in once blood vessels have opened up. While working out at night has been shown to drop blood pressure by 10 per cent, training in the morning actually increased blood pressure, the study showed. Sports demanding speed and endurance are better kept for after hours; most athletics and cycling world records have been broken in the afternoon according to Liverpool John Moores University research.



6AM

Downward dog. Research supports the idea that balance is generally better in the morning, so hit up early-morning yoga.

9AM

If you are planning surgery – cosmetic or not – ask for a morning theatre booking.

Not only will you spare yourself the hassle of fasting all day, statistics show fewer surgical complications for morning procedures with experts citing the AM's peak in cortisol and adrenaline for prompting your body's own healing power.

12PM – 4PM

Listen to Green Day at full volume. While we don't advocate damaging your hearing, the growth hormones released during daylight hours may give it a nudge towards faster repair.



12PM – 8PM

Eat. A study has backed the merits of intermittent fasting for stabilising body weight, blood sugar and cholesterol. Forget five-two, however. Eating during your eight most active hours (in ratio terms, that's 20:8) synched with body weight loss and improved cholesterol and blood sugar in a study in journal *Cell Metabolism*. When two groups of mice followed the same diet with equal calories, Minnies that ate only during their peak activity window were 40 per cent leaner than ad libitum peers.

1PM – 3PM

Waxing appointment. Pain threshold is higher in the afternoon than in the morning. In fact, local anaesthesia can last up to three times as long in the afternoon, research shows. If you're wanting to make the most of your daily pain relief allowance, save the afternoon for your times of greatest pain experience and use analgesics (if necessary) at other times. For things you know come with a degree of pain, like blood tests, try to book for the afternoon when pain perception is likely to be lower.



1PM – 2PM

Power nap. The idea of a single eight-hour sleep is an anomaly by global standards; in many cultures, power naps, siestas and their variants are accepted as a normal part of human functioning. It follows research suggesting that humans are built to sleep twice each day in what's known as bi-phasic sleep – a bit like intuitive eating but for sleep. Proponents say that the best way to time your kip for optimal effect is to honour your body's signals. Between the ages of 20 and 55, the sleep we need dials down from its peak nighttime length between the ages of 10 and 20 to the shorter sleep cycle of a 10-year-old by age 55.

3PM

Meet friends for vino. Liver enzymes peak around midday, so keep alcoholic bevs to after lunch. In the late afternoon/early evening, alcohol will have a lower effect on cognition than in the AM.



2PM, 10AM... ETC

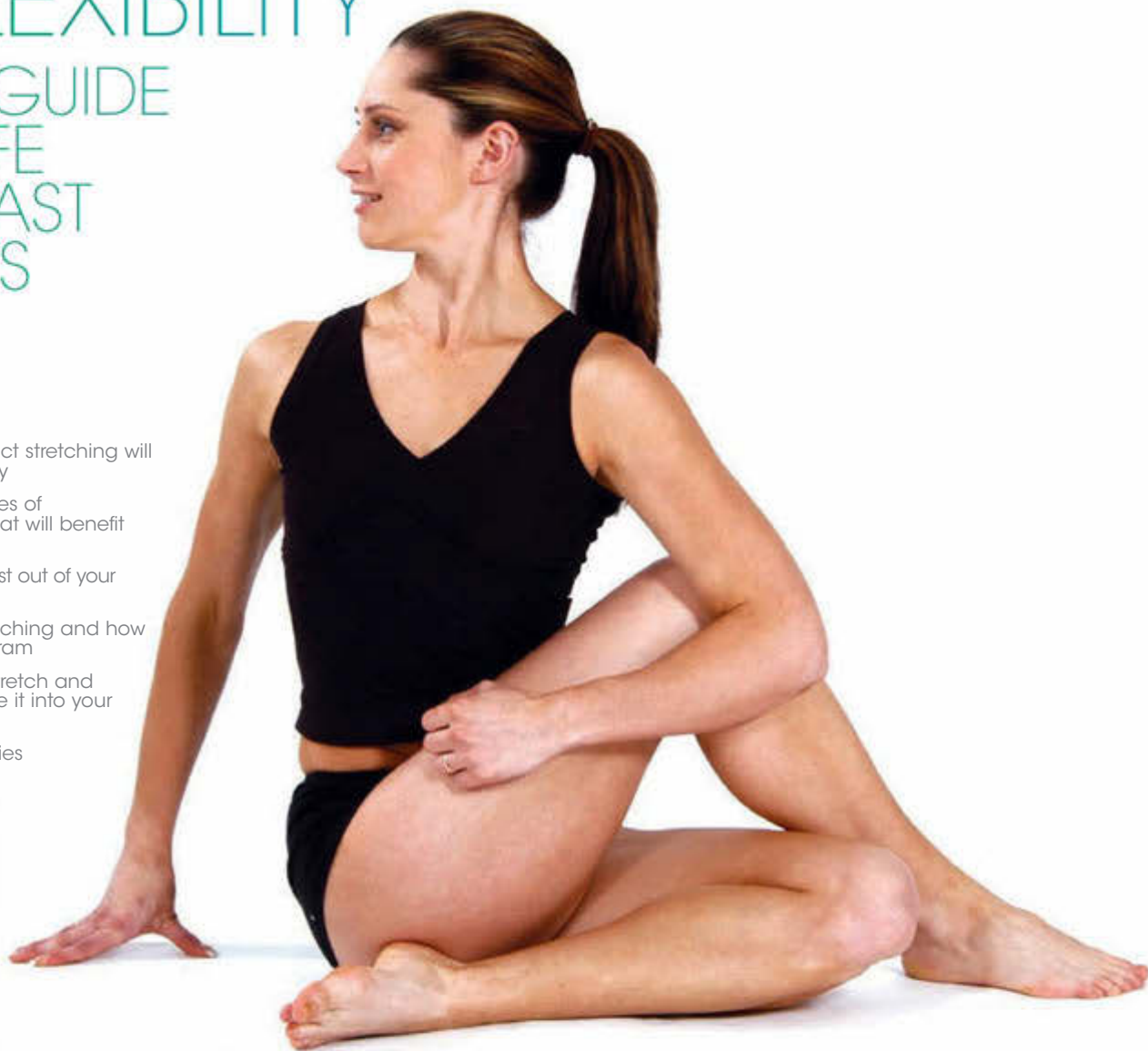
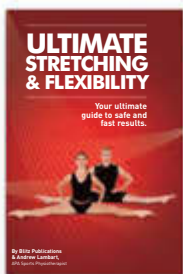
Work. There really is such thing as a morning or afternoon person – and it's nothing to do with what time the coffee van turns up. Knowing your personal peaks and troughs can help you to boost productivity by scheduling task types to match your rhythm. If you're most energetic in the morning, use that time to crunch numbers, nut out strategy and pitch a project. Use your less focused hours for more menial tasks (less focus actually benefits creative thinking). Extra perk: working in your peak means you're better equipped to block distractions. ■

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In a culture that deifies busyness and promises that we can have it all, the word 'no' has become a modern-day obscenity. But have we taken the yes thing too far?

Words: Angela Tufvesson and Rebecca Long

One of the shortest words in the English language, 'no' is also one of the most difficult for many people to say. Whether for fear of conflict or disappointing others, a quest for social acceptance or poor time management, there are a heap of powerful barriers that scare many of us into saying yes when we'd rather flat-out refuse. When was the last time you committed to help a friend move when you really just wanted 'me time' or agreed to an extra work project despite being stressed to the eyeballs?

The positive psychology movement and affirmations trend has practically turned saying 'yes' into a new-age religion: yes-ism. Yes to scary experiences. Yes to facing the fear and doing it anyway. Yes to bucking up and owning our actions. Yes to, well, life. (Never mind the paradox that saying 'yes' to something is simultaneously saying no to another.)

Yet while some types of 'yes' can be endlessly enriching – yes to an impromptu trip to Andalusia or trying duck tongue in Thailand – other species of assent can be catastrophic. Before you check into 'no rehab', never to utter the word again, it's worth interrogating the beliefs that power your 'yesness'; is it because you believe that living your best life demands a sense of adventure, with yeses chosen freely? Or is your yen for 'yes' in fact a thinly veiled fear of saying 'no'?

50 SHADES OF YAY

Take this train of thought: I want to keep everyone happy and believe that saying 'yes' is the way to do it. Initially, of course it is. But paradoxically it can lead to letting them down more seismically in the longer term. While writing you down as a 'no' for the wedding would be disappointing, its fallout pales against the inconvenience and perhaps ire and resentment when you pull out on the day due to

exhaustion, overwhelm of even illness. Cue empty seat and wasted catering.

Such scenarios are the ironic curse of the 'yes' person, who feels as though they need to acquiesce to gain and maintain acceptance – to others and to themselves.

"People find it difficult to say no because there is a greater risk of creating conflict and tension," says psychiatrist and psychotherapist Katie Dimarco. "If we say no and displease people, they might reject us. We are very socially motivated creatures, so it is often easier to say yes and to be seen as cooperative and more pleasing towards others."

Yes folks (those whose yeses are less from freedom and hunger for life and more from obligation or fear) are often concerned about being perceived as uncaring or selfish, while for others, saying yes is the path of least resistance and a way to avoid confrontation, says Susan Newman, author of *The Book of No: 250 Ways to Say It – and Stop People-Pleasing Forever*.

"A lot of people worry about being liked or loved and want to be part of the group," says Newman. "They fear their refusals will ban them from their friends. If they say no to an invitation or request, they fear they will not be included or asked the next time."

Yet this sort of thinking fails to forecast the fallouts if, as the commitment draws near and imminence fills in details you'd brushed off because it felt like forever away, you do a re-think or about-turn. Whether you actually renege on that to which you said 'yes' or keep your word and suffer inconvenience, the consequences can be significant – from self-flagellation over failing to meet perceived obligations (which, FYI, only became obligations in agreement to them) to fractious relations with friends you feel are making you give up your time to sort their cupboards. Of course, if you're motivated by a wish to ease your

friend's moving house stress, to spend time together or other perceived merit, there is no problem. It's equally unhelpful to only embrace that which brings us joy and pleasure. It's a tricky balance.

TOXIC ASSENT

If your pre-decision cost-benefit analyses consistently gloss over your own needs, the incremental resentment and sense of violation can manifest in some pretty whacky ways. One theory says that failing to draw boundaries around your needs, wants and values can culminate in physical illness.

Psychiatrist Victor Bloom says that some of us unconsciously 'chase' illness.

"Sickness does give an excuse to avoid situations the patient wants to avoid, but can't admit to openly," he says. No one can object to a cancelled RSVP due to laryngitis or tummy issues, right?

"People with unresolved, unconscious guilt may inadvertently fall prey to unconscious mechanisms of self-punishment. In

simple terms, guilt requires punishment, and if there is not external, tangible punishment, which becomes 'justice', and in extreme cases, paying one's debt to society, we are capable of punishing ourselves without even realising it," Bloom says.

"The body 'cooperates' with the deep need of the patient by actually creating pathology, especially where there is already a bodily weakness or susceptibility."

Stress is one such susceptibility. A study conducted by psychologist Sheldon Cohen – who has over the years deliberately infected thousands of people with the cold virus in the name of science – found that when people were exposed to the cold virus, 47 per cent of the highly stressed group went on to become infected by the virus compared to only 27 per cent of people with little to no stress in their lives.

The physical reason is steroids. "We know that high levels of stress produce

steroids," says Professor Stephen Turner, immunologist at the University of Melbourne. "That's a common side effect of being stressed or under pressure. Steroids actually dampen down immune function. That's why they're used for transplants and grafts, where things can be rejected very quickly."

More serious diseases can also ensue, says psychologist Dr Ben Buchanan from Victorian Counselling and Psychological Services. "Studies show that when people are unable to assert themselves by saying no, they have higher levels of clinical anxiety and even have high levels of cardiovascular disease."

ADDICTED TO BUSY

Contemporary Western culture is besotted with busy and being seen to be able to do it all – yes, yes, yes, yes, yes. Having more to do has become a status symbol, worn with a sort of stoic pride that would mask true resentment

– if not for the odd snippy passive-aggressive quip. Think, "I was up all night working on this and my migraines might flare up, but it's fine." To the untrained eye, this busy person can seem admirably superhuman, but to those who know the type, the martyrdom is probably seen as both indulgent and unbecoming.

"The negative impact comes if we say yes but then resent ourselves or feel indignant towards the other person," says Dr Buchanan.

Newman says this self-defeating pattern can be beyond

our awareness, emerging automatically. "For some it is a habit, even an addiction," says Newman. "They want to be thought of as the go-to person and thrive on being needed."

Women are worse than men because they're raised to be nurturing and caring, she says. We also lack the testosterone related to sticking up for oneself, says Dr Buchanan.

But here's the thing. By insisting on soldiering on in a depleted or frazzled state, you're doing both yourself and the world a disservice. You're not going to be the best friend, worker, community member or significant other when your needs aren't being met.

"I tell my clients to always plan me first," says author and life coach Shannah Kennedy. "Some people think it's selfish, but it's not."

She says if you are at your fittest, level-headed best because you've been to your regular yoga class or your monthly catch-up with girlfriends, then you will function better and be in a position to be a better mother/partner/friend/colleague.

Kennedy says it's impossible to strike a healthy yes/no balance without both clarifying and committing to your not-negotiables.

"Not having a diary is an act of self-sabotage," she says. "It's like charging expenses on your credit card all month and not keeping tabs on your spending, never asking for receipts, then complaining that your credit card bill is so high."

So sit down with your diary for the week and lock in your gym schedule, your adult education class, your weekly massage and even smaller tasks like daily coffee breaks. Set reminders on your phone if you need to.

Ask yourself: do the entries in your diary match the values you hold dearest? Have you booked in downtime to recharge? Have you booked in quality time with

“Studies show that when people are unable to assert themselves by saying no, they have **HIGHER LEVELS OF CLINICAL ANXIETY** and even have high levels of cardiovascular disease.”



those most important to you?

Every day, take time out of your working day for yourself – do a Pilates class, schedule some stretching or meditation, listen to music you like or do some breathing exercises. You will soon start to feel more balanced in your workplace.

“People say to me, ‘Oh my God, I forgot how important yoga was to me,’ or ‘I need to drink water, I feel so much better,’” Kennedy says.

Kennedy was once “living the dream” in the fast-paced corporate realm of sports management, working with more than 100 world-class athletes around the globe. But her world came crashing down when she was diagnosed with chronic fatigue.

“For several years, I brushed aside the creeping symptoms of burnout – fatigue, stress, exhaustion – and chalked it up as ‘the price to be paid’ for having a successful career,” she says.

“Then I was delivered a devastating reminder that I needed to slow down...my body abruptly gave way to chronic fatigue.”

She was virtually bedridden for 12 months.

“I lost myself, my networks, and my ability to do anything I put my mind to, as my body would not respond,” she says. “Not surprisingly, I started to experience the beginnings of depression. I felt like such a failure. It was only years later that I realised what a blessing my illness was – a gift that allowed me to see life’s grand picture.”

THE FINE LINE

So how can you tell whether the ‘yes’ on the tip of your tongue is helpful or potentially harmful? What if you say ‘no’ to the opportunity of a lifetime or get addicted to turning things down?

First, let’s be clear about what ‘no’ means – while it’s often imagined as meaning

TURN-DOWN *tricks*



You don’t have to say the magic word to make your point. Here’s our script for wriggling out of unwanted requests.

Request: Your bestie asks you to water her garden while she’s in Turkey for a month – after forgetting to check your mail when you went away for a week.

What you should say: I’m flat-chat at the moment and can’t guarantee I will be able to collect the mail or water the garden regularly.

Why it works: Sometimes it’s easier to keep the peace of the relationship, especially with a family member. “In these situations it might not be the best approach to confront them about how unlikely it is that they won’t return the favour,” says Dimarco. Alternatively, if you’re happy to mind the hood as long as your sis agrees to house-sit at your place during your next holiday, state your position clearly to avoid conflict down the track.

Request: Your manager wants you to step up and lead the team without giving you a pay rise.

What you should say: Is this a temporary assignment – how long do you think it will take? Or: that’s fine, but something will have to go off my list or wait – what do you suggest?

Why it works: You are essentially saying you’re happy to do more, but you are also reminding your manager of your value, says Newman. “This gets the boss to see how much you are doing and possibly remove a task before they assign another, or they may see you are more valuable doing what you do now and give the new task to someone else.”

Request: A guy you met at the gym asks you out for a drink but you don’t feel the spark.

What you should say: I’m flattered but I will say no. I know I am not attracted to you in a romantic way and I don’t want to lead you on.

Why it works: There’s no confusion and his ego is undamaged. “Remember, it’s hard for men to get up the courage to make the first move, and many men have endured graceless rejections by women who don’t know how to say no while maintaining their composure,” says relationship therapist Susie Tuckwell.

Request: Your sister, who has lost all her demerit points twice, wants to borrow your car for the weekend.

What you should say: I’m sorry, I don’t lend my car to other people.

Why it works: It’s quick and painless, especially if you follow up with a smile and move on to another topic of interest to you both. “Explanations are unnecessary and unkind here as there is no nice way to say, ‘You are unreliable and a bad driver,’” says Tuckwell.

Request: Your significant other, who earns more than you, expects you to do all the cooking and cleaning.

What you should say: Use the three-part ‘I’ statement: When you don’t help out with household chores, I feel like you don’t value my time as I am working too. I don’t want to do all of the housework. Let’s work out a roster so you and I can share the jobs.

Why it works: “There’s no blame and no criticism,” says Tuckwell. “You give a clear statement of feelings, actions and a solution. Do not enter into lengthy discussions or arguments.”

How To Survive SAYING NO



Here are Newman's top tips to honing your ability to turn people down. "You won't be able to say no to everything asked of you, nor will you want to, but you don't have to be an ever-accommodating yes person to be loved, respected and admired," she says.

1. AUDIT AND VET YOUR YESES. If you are a yes person, counting how many times you use the word 'yes' in a week will shock you. The real gauge of whether your yes quotient's over the top is how pressured, time-poor or resentful you feel. Any negative reaction – Why did I agree? What was I thinking? What am I doing? I don't want to be available, I would rather be elsewhere – is a sign you're at your threshold.

2. TIME MANAGE CONSCIOUSLY. If most of your time is monopolised assisting one friend, when will you see other friends? If family or job demands are high, what's left over for your own enjoyment? When your time is well managed, you'll keep some in reserve for what's most important to you.

3. ARTICULATE YOUR PRIORITIES. Who has first crack at you without you feeling burdened or anxious? A partner? A child? A friend? A boss?

4. DEFINE PARAMETERS. They can be emotional, physical or both, but there's a definite line and you need to get to know it. How much of other people's problems can you tolerate without feeling drained? How long are you willing to put up with one-way friendships with you always on the giving end? Decide how personal you're willing to be and what kinds of requests make you uncomfortable. On the physical side, when does your stamina give out? Which requests are too taxing? To stay healthy your body and mind require rest, and if you don't set limits, you won't get it.

5. DELEGATE SURPLUS WORK. When you don't trust others to be in charge or to get things accomplished, you wind up agreeing to and doing far more than your share. Eliminating the need to run things yourself to be sure they turn out the way you like relieves much of the pressure you put on yourself.

all sorts of things like a value judgment about a person or proposition (who hasn't paid full price because they were too scared of hearing 'no' in response to a discount, please?), the word itself is neutral, saying nothing about the motivation for using it or what the naysayer thinks about, well, anything more than their own willingness to do a specific thing. Rather than thinking of 'no' as a storybook (and most of us hear a story when we imagine the word 'no'), it pays to think of it as purely functional: a boundary-setting device to regulate your dealings with others. No more, no less.

"Like any social interaction, gentle self-confidence, pleasantness and charm are the everyday keys to saying no," says Tuckwell. "Be respectful to the needs of the other person and to your own needs. Acknowledge the other person's concerns. Do not feel you have to explain, but do be kind and respectful. If they don't hear you the first time, use the broken record technique and repeat in an even tone without anger or blame."

In honing your 'no' skills, Dimarco suggests practising simple refusals before progressing to trickier scenarios to build confidence. Knock back a telemarketer before declining your mother-in-law's roast, if you know what we mean. It can also be helpful to focus on the problem ("I'm sorry, I won't be able to drive you to work") rather than the personal ("I don't have time to drive you to work") to preserve your relationship with the other person.

The tried and true 'bad news sandwich' is another sound strategy. Begin with a yes that expresses your needs and values, continue smoothly with the no, and finish with a second yes that furthers your relationship. For example, "My family need me to spend time with them. I won't be able to come in to the office on the weekend. Here's my work plan to ensure I get everything done by Friday."

Importantly, let your no speak for itself and resist the urge to justify it or apologise repeatedly. "It is realistic to expect that you might get a disgruntled reaction from the person you have said no to," says Dimarco. "That's okay. People are allowed to get disgruntled, just like you are allowed to say no. It might not have been the answer they were expecting or are used to from you. You need to ride it out and let them settle down. You can revisit the issue later if required to explain your position again. At this point, try to come up with some alternatives to the situation."

Research also suggests that choosing your words carefully can frame your sense of empowerment and control, as well as preserve your relationship with the other person. 'I can't' reinforces your limitations, whereas 'I don't' reminds you that you're in control of the situation. After all, 'I don't eat dessert' is a whole lot more powerful than 'I can't eat that piece of tiramisu'. ■



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- Updates on health and fitness events, videos, tips, motivational quotes and more! ■

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YOUR BEST » LOVE IT

Whether you're putting kids on hold while you climb the career ladder job or have done the mum thing and are ready for a two-door convertible, prohibiting conception isn't as simple as it sounds. Meet your birth control match.

Words: Jennifer Harbottle

IMMACULATE CONTRACEPTION

CAUTION: KEEP OUT

RESTRICTED AREA

Banks, gyms, phone companies and electricity providers all exploit a simple fact. Most of what we do is driven by habit and few of us find deviating from automatic behaviours easy. (Hello, recurring direct debit.) In fact, the whole scientific sub-discipline of heuristics is dedicated to the blind spots incurred by the brain's energy-saving shortcuts. Filed beside still paying handset repayments on an out-of-contract phone is birth control.

Unlike an energy plan, no-one's going to call and tell you your contraception's old hat. Yet the pace of scientific research into safer, more effective, less cumbersome contraceptives means that if you started taking the Pill pre-Instagram, there's a fair chance it's been eclipsed by something, well, smarter.

A survey commissioned by pharmaceutical company Merck found that 40 per cent of women aren't happy with their birth control method. Yet surprisingly, over half of those admit they haven't done anything about changing it.

Dr Louise Farrell, vice-president of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, says that picking a birth control that suits your personality will not only reduce your chances of unintended conception, but can be vastly more convenient. "Most women are on contraceptives for a long stretch of time, so choosing one that suits your personality makes a lot of sense. There's no point relying on the Pill, for instance, if you're the type of person who forgets your Mum's birthday!"

Choosing the wrong birth control can also imperil long-term health. "Risk factors change as you get older, so the brand of the Pill you are using may be good in your early 20s but too high in oestrogen in your 40s, when your risk of breast cancer increases," Dr Farrell says.

To find out your birth control personality, rate yourself against these types. You bet it's personal.

1. When you've got a headache, what do you do?

- A** Knock a paracetamol or three back with a glass of cab merlot
- B** Make a ginger tea and do qi gong in the backyard
- C** Go straight to your GP in case it's a brain aneurysm
- D** Check your temperature and open your period tracking app to see whether you're ovulating

2. My ob-gyn sees me...

- A** Often. He's hot – and single
- B** Rarely. I prefer to commune with my body through meditation
- C** Just no. My body is my business
- D** As recommended, unless I have a specific concern. It's good to know exactly where your body is at

3. If I thought I might be pregnant...

- A** I'd laugh. Never gonna happen
- B** At the right time, it would be a blessing
- C** I probably wouldn't relax until the day it was born
- D** I'm not going to get pregnant until I'm 33 and have been married three-and-a-quarter years

4. My period...

- A** Is welcome. At least it comes!
- B** Is a natural part of a woman's body
- C** Freaks me out when it doesn't arrive on the exact date it should
- D** Is my puppet project. I use the Pill to control it so it doesn't interfere with my life in any way

5. My approach to casual sex is...

- A** The more, the merrier, especially after a few G&Ts
- B** I prefer to be in a monogamous relationship
- C** No one would like my love handles and what if they think I'm no good in bed?
- D** Great, as long as the boundaries and rules are clear. Expectations 'n' all

NEXT PAGE
FIND YOUR
PERFECT BIRTH
CONTROL
PARTNER



MOSTLY **A**s **HEDONIST**

You're a carefree pleasure seeker. You're so confident and sexy, you'd scare Russell Brand off! Contraception's a necessary evil for you and if you could only trust a man to do it, you'd happily have him take on the responsibility.

MOSTLY **B**s **PURIST**

An aversion to toxins in your body, fear for rubber plantations in South-East Asia and a belief that sperm-have-rights-too is all well and good but it doesn't leave many options open to stopping babies.

MOSTLY **C**s **WORRIER**

Your approach to contraception is more complicated than finding Tom Cruise a new wife. Foreplay for you is putting on three condoms and a femidom and any post-sex spooning is ruined by worrying thoughts of what ifs (the Pill failed...the double condom split...)

MOSTLY **D**s **CONTROL FAH-REEEAK**

Your mini pill sits in a little box with the days of the week on it and you have been known to set your alarm to make sure you take it at the same time every day. You enjoy sex, as long as it's in your bed, on your terms and you decide what, when and how often.

PICKING YOUR PERFECT BIRTH CONTROL PARTNER

Choosing birth control is a bit like choosing a partner – you want one that's always there for you, is the perfect fit for your body and that doesn't deliver unwanted surprises. Follow our guide to selecting one to suit your personality.

METHOD	BEST FOR	PROS	CONS	EFFECTIVENESS
THE COMBINED PILL The most common choice among Australian women, the combined Pill works by stopping your ovaries from releasing an egg each month.	▶ The Worrier ▶ The Control Freak	Spotty teenagers love the Pill for its acne-begone powers. It can also significantly reduce the side effects of PMS, as well as lessen the intensity and duration of periods by up to 50 percent.	Diarrhoea and vomiting as well as taking antibiotics can reduce the effectiveness of the combined Pill. Plus, some women report tender breasts and a feeling of nausea on it. (Ironically, the same symptoms as pregnancy – worriers take note.) Women with a history of blood clotting and focal migraines should avoid taking it.	Perfect use 99.7%; typical 91%
THE PATCH <i>(not available in Australia)</i> This sticky, tan-coloured patch that releases hormones to stop you getting pregnant needs to be stuck to your body for three weeks out of every four. A new patch is used each week.	▶ The Purist	Unlike the pill, the hormones in the patch don't need to be absorbed by the stomach, so the patch isn't affected by vomiting. Bleeds are usually lighter and more regular and you only have to remember to rip off and re-stick once a week.	Ultra sticky, the patch can still fall off if the skin underneath is too hairy or rough. Patches are visible and may cause irritation if you're allergic to elastoplast. Spotting is quite common.	99%
VAGINAL RING Pop the ring in on the first day of your period, remove it 21 days later then seven days after that, insert a new one for one-month-long birth control protection.	▶ The Worrier	Unlike the pill, the ring will protect you against pregnancy during diarrhoea and vomiting. May also ease premenstrual symptoms such as heavy bleeding and mood swings.	Sometimes the ring can come out during sex or if you're constipated. It's easily re-inserted after a quick wash but if it's out for more than three hours, its effectiveness is drastically reduced.	Perfect use 99.7%; typical use 91%
THE IMPLANT This tiny little strip of plastic gets put in your arm and protects you from pregnancy for three years by stopping your body from ovulating.	▶ The Risk Taker ▶ The Worrier ▶ The Control Freak	Instantly reversible, cheap as chips and you don't have to remember to take contraception on a daily basis. The main drawback for implants is breakthrough bleeding, which according to Dr Farrell, occurs in 20 per cent of cases. Historical insertion problems have been overcome.	Stories of docs not implanting correctly resulting in unwanted pregnancies may scare you off, so make sure you trust your GP to know what they're doing. Also, very large women may find the amount of hormone released isn't enough to stop them getting pregnant.	An impressive 99.5% (perfect and typical)
IUD A small device that gets placed in your uterus to prevent sperm fertilising your eggs. The IUD comes in two forms – copper and levonorgestrel. The copper has perfect use efficacy of 99.8 per cent with 99.2 per cent typical and the Mirena (progestogen loaded) version is 99.8 per cent perfect and typical.	▶ The Risk Taker	Although more \$\$\$ initially, over the long term, a cheap option because it lasts five years. Easy to maintain and you can't forget to take it, like the pill.	Abnormal bleeding can be a side effect of an IUD. They can also become infected, although thankfully this is rare. An IUD has to be removed by a health professional.	98% effective, like the pill
EMERGENCY PILL Works by altering the lining of your womb, so an egg can't embed itself there.	▶ The Risk Taker ▶ The Worrier ▶ The Control Freak	Available from chemists without a prescription, these are a quick fix for an "oops!" moment.	While it's more effective the sooner you take it, this pill is not guaranteed to stop pregnancy.	85%

METHOD	BEST FOR	PROS	CONS	EFFECTIVENESS
THE SHOT T (DEPO-PROVERA) A progesterone-only injection given by your doctor every three months, which works by preventing ovulation.	▶ The Purist ▶ The Worrier ▶ The Control Freak	Highly effective, great for women who can't take oestrogen and you only have to have it four times a year.	Breakthrough bleeding is a common complaint from users and it can take up to 12 months to leave your body, so not a short-term birth control option. Weight gain is reported in 25 per cent of women.	Injection spot on every three months (perfect use) 99.8%; typical use 94%
CONDOMS This little rubber friend works by catching his sperm and refusing to let it have anything to do with your cervix.	▶ The Risk Taker	The only contraception that provides protection against STDs, plus you can buy them (almost) anywhere. A good option for back-up birth control.	Stopping mid pash to roll on some rubber can dampen the moment. Condoms are for one-time use only so if you run out of them, you're screwed (literally!)	Perfect use 98%; typical use 82%
THE MINI PILL The progestogen in the mini pill makes your cervical mucus thicken, which acts as a plug to prevent sperm from entering your uterus.	▶ The Worrier ▶ The Control Freak	The mini pill is perfectly safe for breastfeeding mothers. (Who...err...presumably weren't on it when they made a baby).	Needs to be taken daily without a break and shouldn't be taken more than three hours late. Depending on how many years you take it, can work out quite expensive.	Perfect use 99.7% (i.e. every 24 hours without missing or being late for taking); typical use 91%



MYTH: Long-term Pill use makes falling pregnant less likely

A study at Copenhagen University Hospital last year found that levels of anti-Müllerian hormone and antral follicles, which predict fertilisation probability, were 19 and 16 per cent lower respectively in Pill users than those not taking a contraceptive pill. Ovarian volume was also between 29 and 52 per cent smaller. While they said the changes were

likely to reverse after stopping the Pill, researchers suggested testing ovarian reserves three months after stopping the Pill to accurately gauge fertility odds.

Experts at The Royal Women's Hospital in Melbourne say some practitioners suggest having three normal menstrual cycles after discontinuing the Pill.

MYTH: Skipping your period on purpose is dangerous

If you want to take the Pill

continuously to avoid having periods altogether, it's perfectly safe, says Dr Farrell. "People should take the Pill to suit their lifestyle," Dr Farrell says. Bear in mind that it's not foolproof; some people experience breakthrough bleeding and it can stop working after months. For women with a family history of blood clots, smokers and those aged over 35, taking an oestrogen pill does increase the risk of deep vein thrombosis and related conditions, potentially including stroke. If you do wish to puppeteer your periods, ask for a monophasic pill.

MYTH: The Pill causes weight gain

Not according to Dr Farrell, who says that on the contrary, some Pills result in weight loss rather than weight gain. "Psychosomatically, some people imagine they're hungrier on the Pill, so they eat more, which explains why they put on weight."

MYTH: Antibiotics impair birth control

The only antibiotics known to affect how well some hormonal contraceptives work are Rifadin and Rimycin, used to treat serious bacterial infections such as tuberculosis, according to NPS

MedicineWise clinical adviser Dr Philippa Binns. She advises extra contraceptive precautions while taking them and for a few days after finishing the course.

MYTH: There's no need for birth control when you're breastfeeding

Statistically, you still have a five per cent chance of getting pregnant while you're fully breastfeeding. If you're combining bottle and breast, conception chances increase. However, taking certain hormonal contraceptives may restrict your milk supply according to the Australian Breastfeeding Association, so choose the mini pill or an IUD like the Mirena when you're breastfeeding instead.


MYTH: The Pill increases breast cancer risk

There is a slightly increased risk of getting breast cancer if you are on the Pill. However, Dr Farrell says it's incredibly low and more likely in women who are over 45. "For women who have a history of breast lumps, or women in their 40s, it's best to go and see your GP to find out if you'd be better changing to a low-oestrogen pill or coming off it altogether," she says. ■

Getaway Clinic

Don't want to miss a day-and-a-half adjusting to a new time zone or determined to skip the tummy bug (so much for the infinity-edge oceanside pool)? Add this to your first-aid kit.

Words: Angela Tufvesson



Living 24 hours in 16 isn't quite what evolution had in mind when it designed the human sleep cycle. Nor is it likely to have factored cabin compression into eating cues. Yet they're among the anomalies imposed on your body during long-haul travel. No wonder our bodies make all sorts of misguided adaptations, from sending us to sleep at 3pm to evacuating everything we put in our mouths. The solution is to second-guess them.



The sleep

The body's 24-hour sleep cycle makes jet lag almost inevitable if you travel across two or more time zones. "When we move too quickly, such as with plane travel, our body stays in the clock where we were and that no longer fits with where we're going," says Dr Siobhan Banks, a senior research fellow at the Centre for Sleep Research at the University of South Australia. Interestingly, westward travel (say Australia to Europe) is less disruptive than that in an eastward direction as the journey extends one normal day-night cycle. The reverse, like Melbourne to New York, contradicts the body clock, making jet lag more severe.

✈️ DEPARTURE: Many frequent flyers swear by turning their watch to their destination time a day or two before the plane takes off to help their body adjust to the new time zone. "When travelling to the US, for example, get up a little earlier each day," says Dr Banks. "What you're doing is gradually shifting your clock back a little so it's similar to your new time zone."

✈️ EN ROUTE: Try to avoid taking sleeping tablets in case of an emergency on the flight. And avoid knocking yourself out with a few wines – alcohol actually disrupts normal sleep cycles and can prolong jet lag. Instead, Dr Banks recommends eating small, light meals, drinking plenty of water and napping when you feel sleepy.

✈️ ARRIVAL: Resist the urge to kip when you get to your hotel. Staying up until your normal bedtime will help reset your body clock to the new time zone. Getting outside will also expedite the adjustment as sunlight suppresses production of sleep hormone melatonin. Also try to coax your appetite into the new time zone by waiting for meal times appropriate to the destination – not your home town. If you fly frequently and can't afford to lose a few days in a semi-fog (e.g. business travel), you may wish to ask your doctor for a script for melatonin, which is now accepted as a natural jet lag remedy and can lull you into sleep when your body thinks it's midday but the new place says it's midnight. It helps to shift circadian rhythms, Dr Banks says.



The seating position

There is evidence that long-haul flights lasting more than four hours can increase your risk of developing deep vein thrombosis (DVT) – a potentially life-threatening blood clot that forms in the veins of the leg.

However, the risk of developing DVT on a long-haul flight is very slim (about one in 4,500) but the chance of experiencing muscle stiffness in cramped economy class conditions is almost guaranteed. "There really isn't a comfortable way to sleep in neutral posture on an airplane unless you pay the big bucks," says physiotherapist Jason Smith, founder of Back In Motion clinics.

✈️ DEPARTURE: Check in most of your luggage and pack a small carry-on bag to take on the plane.

"After sitting in the same position for more than an hour, the ligaments actually over-stretch rather than flicking back like a rubber band," says Smith. "This is called ligament creep, and it increases the risk of injury when you're taking heavy things in and out of the overhead lockers."

✈️ EN ROUTE: Do your posture a favour and sit with your bottom all the way back in the seat and your shoulder blades resting against the back of the seat, Smith says. Try placing a small pillow or folded jumper in the small of your back to create the spine's natural curve. Feet should be flat on the floor and knees about two fists apart.

To reduce the effects of ligament creep and the risk of DVT, and avoid muscle stiffness, stand up every hour and walk the length of your aisle. If you can find a space, do a couple of calf raises or squats and arch your back, Smith advises. Two minutes' break is enough.

✈️ ARRIVAL: Walk around and watch for unusual leg discomfort or shortness of breath. These may be symptomatic of a blood clot.



If you can find a space, do a couple of calf raises or squats and arch your back



The grub

There's a good reason airline food contains more salt and sugar than many ground-level meals.

The dry air in a compressed cabin skews taste perception, studies show. If that wasn't enough, the white noise has also been shown to distort the way we perceive flavour,

effectively dampening taste buds. While that means you mightn't enjoy your mid-flight meal as much as an airport one, it's not a major problem. The methods airlines use to compensate for the flavour handicap, on the other hand, can be. Knowing a mouth dried by cabin air is somewhat immune

to subtle tastes, especially salty and sweet ones, airlines tend to load up on sugar and salt. Accredited practising dietitian Kara Landau, author of *The Clean Separation* and the blog *Travelling Dietitian*, says, "You don't taste as well when you're flying and in order to make the food more palatable, airlines



may make the food more sugary and salty." The other strike against airline food in the health stakes is pre-preparation, she says. Finally, whether you choose to eat carbs or protein can impact jet lag by keeping you awake or sending you to sleep when you should be doing the opposite.

↑ DEPARTURE: Check the booking form for special diet options. Otherwise, enquire about how the airline caters to special dietary needs and request a custom meal to suit. The proliferation of food allergies has forced airlines to adapt with gluten-free offerings, and all airlines have vegetarian menus, which may be less heavy than meaty fare.

✈️ IN ROUTE: If your flight is overnight or you plan to sleep, favour carbs, Landau advises. These stimulate calming neurotransmitter serotonin. On the flip side, if your flight is short or you're eating before or shortly after disembarking, favour protein,

which promotes wakefulness and focus. Try to avoid coffee, tea and alcohol throughout the flight as they're diuretics and will compound the already-dehydrating effects of air travel.

⬇️ ARRIVAL: After you touch down, eat light, well-balanced meals comprising fresh fruits and vegetables, whole grains, lean meats and low-fat dairy foods. And give your stomach a day or two to adjust before plunging into your new environs' culinary platter. If you do find your tummy throwing a tantrum, a-hem, take an anti-diarrhoeal medication you bought at home (there's a raging black market in anti-runs meds o/s), replace lost fluids with clear fluids such as water, diluted pulp-free fruit juice and clear soup, and avoid alcohol, caffeinated drinks and high sugar drinks, which can dehydrate you further. For traveller's diarrhoea, NPS Medicine Wise advises using an oral rehydration solution such as Gastrolyte to restore fluid balance, or DIY solution by mixing a teaspoon of sugar in a cup of sterile water.

Wanderlust can turn the most pedestrian things into dangers. Safeguard your body with this transit intel.

THE PILL

Travel can seriously mess with key mechanisms of oral contraceptives, rendering travellers susceptible to unplanned pregnancy. The most direct way they fail is through malabsorption due to travel maladies that induce diarrhoea or vomiting. Antimalarial doxycycline and high doses of vitamin C found in some jet lag pills can also inhibit the pill's efficacy. Less directly, the time zone changes in long-haul travel can throw the cycle out of whack. Missing a dose by just 12 hours can throw the system off. The going advice is to continue taking the Pill at 'home time' (not local time at your new destination) and gradually adjust to your new time zone. If you do miss a dose, The Travel Doctor TMVC, a specialist travel clinic network, advises applying the seven hormone days rule. In plain speak, take active pills for the next seven days, during which time you'll use condoms as backup. NOTE: Women taking the Pill are more susceptible to blood clot formation, largely due to the oestrogen, and need to be especially aware of the risk ahead of long flights. Women aged over 35 and smokers are especially susceptible. If you're staying above 3,700 metres for more than four weeks, ask your GP about alternative contraceptives as the longer you spend in conditions that maximise clot risk, the greater the odds of it materialising.

VACCINES

Unless there's a solid medical reason not to get your jabs (say pregnancy or contraindications to a medication), it's wise to have inoculations recommended for your destination according to Melbourne GP Jonathan Brown. While it's easy to favour the thinking that it won't happen to you, skipping vaccines is like playing Russian roulette, Dr Brown warns. But vaccines aren't something you can leave to the last minute. NPS clinical adviser Dr Philippa Binns advises seeing your doctor six to eight weeks before you travel. "Some vaccinations need more than one dose to be given over a period of time, and your body will need time to build up immunity before you leave." Also check that your measles, mumps and rubella (MMR) vaccine is up to date as nearly all cases of measles in Australia are caught overseas.



DIARRHOEA

Nothing extinguishes the thrill of gallivanting like an unstable tummy. Even the steeliest gut can react to foreign pathogens that might not affect the locals. Different types of tummy bugs incubate differently, so even if you think you've escaped a dodgy prawn, certain bugs can take hold over as many as seven days. The best defence, of course, is prevention. While advice to drink bottled water is well and good, it's wasted diligence if you're cleaning your teeth with contaminated water or eating ice cream, which preserves bacteria for re-activation upon defrosting. While undercooked meat and seafood are no-brainers for a wide berth, salad can also harbour volatile germs as leaves and raw veg have often been rinsed in contaminated water. Since preventative measures aren't foolproof, also pack an anti-diarrhoeal medication bought on home soil. ■

Living with **Diabetes**

Your Guide to a Healthy Life



From the team at *Australian Natural Health* magazine, this holistic guide is packed with all the information you need to understand and embrace diabetes.

This beautiful edition is all about helping you live your best life, naturally and to the full.

natural treatment
and healing

nourishment

exercise
and movement

weight loss

delicious food
and recipes

30-day diabetes
meal plan



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HEALTHY LIFE



Around The World in 9 Beautiful Ways



Take a trip to Florence, London and Seoul and stock up on these local beauty secrets.

One of the best things about globetrotting is stocking up on the best get-gorgeous goodies each country has to offer. The following must-try, surprisingly affordable products have our beauty bases covered – from hair care to skincare and make-up. Containing unique formulations and ingredients you may not have caught onto until now, they've cult followings in their country of origin, and beyond. Can't afford a plane ticket? As luck would have it, most of them are available online!



Japan: Koh Gen Do Maifanshi Moisture Foundation

Women in Japan place an emphasis on achieving a poreless, creamy complexion. Their brand of choice? Koh Gen Do Maifanshi. The mineral-rich cream foundation is inspired by 'real skin', incorporating plant-based moisturising ingredients for lightweight, long-lasting, comfortable coverage. Use a blending sponge to expertly buff into the skin.



France: Avène Thermal Spring Water

Ask any Parisian woman where she buys her beauty products and she'll point you in the direction of her local pharmacy. Bioderma Crealine H2O, La Roche-Posay Cicaplast Baume B5 and Klorane Dry Shampoo are just a few products that have garnered cult followings among international beauty editors. Our personal favourite is Avène Thermal Spring Water, siphoned from the brand's own thermal spring. One spritz will help moisturiser sink into the skin and increase hydration and luminosity before foundation. A must for sensitive skin types, including anyone who suffers from dermatitis, psoriasis and eczema.



USA: Smith's Rosebud Salve

There's so much to love about this hydrating and sweetly scented balm with the gorgeous pinkish gleam of Turkish delight. Created by Maryland's Rosebud Perfume Company in 1892, the blend of essential oils and cottonseed oil in a petroleum base works to relieve chapped lips as well as soften cuticles and rough hands.



Korea: Missha First Treatment Essence Mask

Birthplace of BB creams and eyelash extensions, Korea is lightyears ahead of the rest of the world when it comes to beauty breakthroughs. Their latest obsession? Fermented skincare products. When fruits, plants and yeast are fermented, their molecular structures are broken down, resulting in them being more concentrated and more easily absorbed into the skin. This nifty mask is soaked with Missha's First Treatment Essence – a product with an almost fanatical following in Korea. The key ingredient is fermented yeast extract, which delivers vitamins, amino acids and minerals to rejuvenate the outer layer of the skin. They recommend using two to three times a week.





Sweden: Victoria Lanolin-Agg-Tval Egg White Soap

Women in Sweden have been using egg whites to tighten their pores for generations, which is where the idea for this soap came from. Essentially a cleansing bar, it removes excess oil and sloughs away dead skin while nourishing with lanolin, rosewater and chamomile.



India: Shaeyes Kajal Kohl Black Eyeliner

We're not even exaggerating when we say this kajal kohl eyeliner is the best in the world. A favourite of Bollywood actresses, the herb and almond oil formula deposits intensely rich pigment while promoting lash growth and being gentle on the eyes.



Latin America: Agua de Maravilla

Humphrey's 100 per cent natural witch hazel has been around since 1854. The versatile remedy, also known as 'miracle water', is a powerful astringent and is commonly used to cleanse, tone and soothe sensitive skin.



UK: Boots No. 7 Protect & Perfect Advanced Serum

Gwyneth Paltrow is a fan and so are we! The anti-ageing serum promises smooth, wrinkle-free skin, powered by a high concentration of Matrixyl 3000 and white lupin extracts, which reduce the breakdown of collagen. The serum is just as covetable as versions by Chanel and Crème de la Mer, but at a fraction of the price. The night and eye cream from the same range are also worth a try.



Italy: Santa Maria Novella Rose Water

If you take one souvenir home from Florence, let it be this exquisite rosewater. The product is ultra versatile. Alcohol free and with natural antioxidant and moisturising properties, use it as a toner, fragrance, hair rinse or make-up remover. You can even dab it on with a cotton bud to de-puff under-eye circles.



HOME GROWN HEROES

You don't need to trot the globe to find some of the world's finest face products. Here are some of the best from our own backyard.



THE RUB: Nix dry winter skin

THE FIND: Go-To Exfoliating Swipecs

Pampering scaly winter skin is a bit like trying to un-burn toast with margarine. Before you douse dryness with your favourite nourishing oil, prep the canvas with Zoe Foster Blake's Go-To single-use facial pads. Ingeniously (or just indecisively) blending the perks of gentle chemical exfoliation with hydrating essential oils, these babies give a far more thorough, even result than scrubbing your face with harsh, jagged particles. Bring on the margarine. Er, serum. \$45.95, gotoskincare.com



THE RUB: Play down wrinkles, uneven skin tone, scars, dryness

THE FIND: Kosmea Certified Organic Rose Hip Oil

If you're chasing vibrant skin, a few drops of this each day will do it. The world's original certified organic rose hip oil, it's packed with essential fatty acids, vitamins and antioxidants and free from harmful chemicals, colourants, fragrances, mineral oils and animal products. Easily absorbed, it can help to smooth wrinkles, even skin tone and reduce the appearance of scars and blemishes. Serious multi-taskers, the ingredients also intensively moisturise and soothe dry skin and balance oiliness. \$24.95 (20ml), kosmea.com.au



THE RUB: Rebuild damaged tresses

THE FIND: Bhave Rescue Intense Repair Shampoo and Conditioner

Straighteners, dryers and colouring turned your glossy locks ratty? There's a whole lot of biochem behind this specially formulated shampoo and conditioner from creator and uber-coiffer Neil Cleminson. After years of research, Cleminson discovered a form of keratin recognised by hair as its own (it's derived from New Zealand sheeps wool), meaning that unlike standard keratin, Replicine functional keratin contains intact proteins and prompts hair to rebuild itself rather than temporarily glossing over damage. It's a bit like knocking back a protein shake after gym. One word: amaze. \$43.95, bhavhair.com.au

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YOUR BEST
MOVIE IT

The power of NOW

Can't find your fitness
get-up-and-go? We've got
the word on instant ways to
turn your groan into grunt.
Yes, even in winter.

Words: Madeline Lakos

Want to harness the power to get up at five am for pump class even when it's cold and dreary outside? Nope, we're not talking about changing your bedtime to half-past seven or hiring a 'fitness concierge' to kick you out of bed; we're talking about good old-fashioned and free-of-charge motivation. It's not easy to come by when your body clock is insisting that getting up when it's dark is utterly ridiculous and the temperature outside is less than desirable, but maintaining your workout routine throughout the colder months is no doubt going to make getting your body 'summer ready' much easier. If the extra kilo on the scales – the average weight gained over the chilly season as cited by a recent study published in the journal of *Physiology and Behavior* – isn't enough to get you jumping out of bed, then perhaps you can find another way to pick up your pep.

"Motivation compels us to do something, whether it's a desire to get food to stay alive, or to evolve or achieve a certain outcome," says human performance researcher Dr Adam Fraser (dradamfraser.com). "But one of the biggest challenges around motivation is that, to stay motivated to achieve a goal, you often need willpower, and willpower is exhaustible."

You might think you're intrinsic drive to 'just do it' is as steady as your desire to stay fit and healthy, but it's human condition to flunk out when our willpower has been exhausted. Why? Because when it comes to motivation, logic is superseded by emotion. "We're essentially emotional creatures, not logical creatures... If we were logical, then everyone would exercise, no one would overeat, no one would have extramarital affairs and so on... but we're definitely not, we're driven

by the emotion," says Fraser.

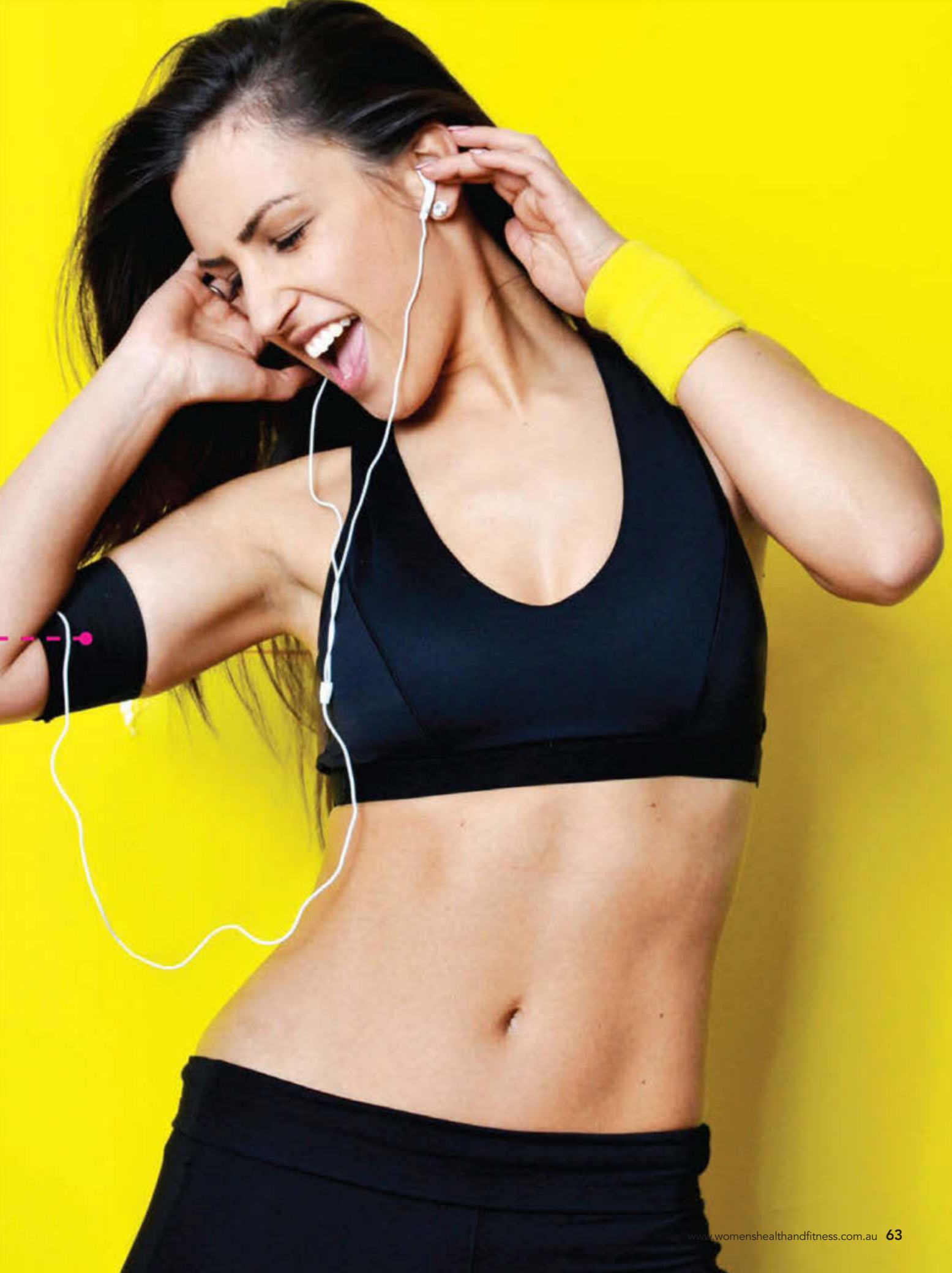
Question is, how do we take emotion and turn it into willpower? According to Fraser, it's all about finding your trigger. "Emotions drive and contribute to our behaviour, that's the reason why a bride follows a strict diet before the wedding, because she has this real emotional drive to look good on her wedding day.

"For me personally, I look after my health and I exercise because I feel better and I have more energy and I get more work done. Other people will have to dig deeper to find their triggers, but the key is whatever you're trying to do, make it more emotionally appealing."

The no pain, no gain approach to health and fitness might look good on paper, but studies show that enjoying your exercise lowers the perceived exertion (how hard you think it is) and therefore not only helps you

commit, but also perform. A study published in the *Journal of Strength and Conditioning Research* found that self-selected music proved to reduce the prevalence of 'non-productive' behaviours in training and increased the effectiveness of warm-up periods prior to swimming, as well as improving sprint and long-distance performance. Studies have shown similar results for the likes of creative visualisation (one such study, published in *Psychology of Sport and Exercise*, found correlations between the energy in images and exercise behaviours) and other psychological pep-ups designed to give exercise an extra hit of emotional appeal.

Now it's time to give yourself the psych-up treatment with a collection of our favourite strategies for the personal pep talk.



Goals

WHAT IT DOES: Finding a goal that gets you excited is a super simple way to give your workouts an edge. Dr Helena Popovic (drhelenapopovic.com), a brain specialist and public speaker, says that when we find something that excites us and compels us into action, we release three potent brain chemicals: dopamine, acetylcholine and adrenaline.

"Dopamine opens our minds and gives us a pleasure hit that compensates for the deprivation we experience when we give something up," she says. "Acetylcholine enables us to focus on our goal and consolidate changes in our brains that occur when we learn a new skill or take on a new habit, and adrenaline fires us up and improves our strength, stamina, alertness and energy levels."

HOW DO TO IT: Some goals are SMARTer than others; that's specific, measurable, achievable, realistic and timely. A goal to 'get fit' is none of these things, but a goal to run a five-minute kilometre by September ticks the right boxes, depending on your personal take on 'achievable' and 'realistic'.

When it comes to actually picking a goal that compels you, exercise physiologist Leah Rowan (nbexercisephysiology.com.au) suggests: "List all your goals, then decide which is the most meaningful to you at this time; often this is the one that you feel will most positively change your life in the next three to six months or is influenced by an event in the near future, such as a wedding or a triathlon."

Creative Visualisation

WHAT IT DOES: Creative visualisation is all about using your imagination to paint an image of you achieving your goal. According to a 1990 study published in the *Journal of Physical Activity, Recreation and Dance*, this helps foster psychological and physical connections that help you achieve your goals. "If you start viewing yourself as an athlete, you're far more likely to achieve fitness and exercise goals than if you view yourself as a couch potato," says clinical neuropsychologist and behaviour specialist Dr Ash Nayate (revolutionme.com.au). "We always act in accordance with who we believe we are, so when we identify as an athlete, our thoughts and actions will be different to the person who identifies as a couch potato, and if we raise our expectations of ourselves and set the bar high enough, then our behaviour follows."

HOW TO DO IT: Life coach and leadership expert Josie Thompson (josiethompson.com) says clarity is vital when it comes to creative visualisation. "The more vivid you make your goals, the better," she says. "You should be able to visualise them – think, what would it look like, feel like, and be like?"

"If you get a real sense for your resolutions with all your senses, you'll have more to draw from and it will make discerning your choices to support achieving your goals much easier."

Finding a goal that gets you excited

IS A SUPER SIMPLE WAY TO GIVE YOUR WORKOUTS AN EDGE

Reward

WHAT IT DOES: Rewarding yourself for a trip to the gym might sound indulgent, but having something to look forward to may help getting out of the car (in the rain) that much easier.

"We call it pleasant event scheduling," says sport and exercise psychology registrar Damien Stewart (room23.com.au). "The aim of pleasant event scheduling is to increase motivation and decrease anxiety through pairing a reward with participation rather than basing a reward on success."

"For a lot of people, a trip to the gym becomes a chore due to mantras such as 'no pain, no gain' – for those of us with busy lives, participating in any level of exercise is an achievement in itself," says Stewart.

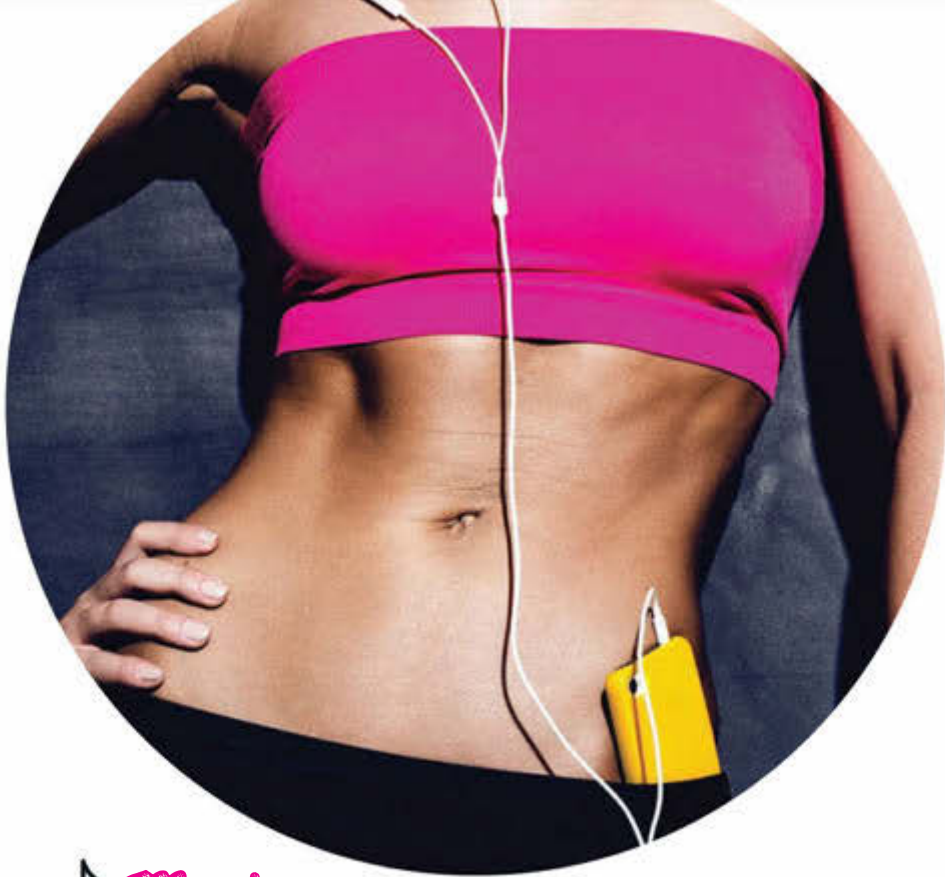
Pleasant event scheduling is often used in the rehabilitation of substance abuse to increase the amount of enjoyment experienced in the rehabilitated person's life and to distract them from using.

HOW TO DO IT: An effective reward system should a) align

with, not contradict, your goals and b) avoid withholding rewards as punishment if goals are not met. "The problem with most sport and exercise rewards systems is that the rewards are based on performance outcomes; as a result, the threat of failure creates anxiety – so you need to commit to your scheduled event, as a reward for participation, whether you achieve your goal or not."

Aim to reward yourself for small, short-term goals, and ensure that they don't involve chowing down on foods that undo your hard work. "Many people fall into the trap of what I call gym reward syndrome: 'I can have muffin with my coffee because I worked out,'" says accredited practising dietitian and nutritionist Dr Joanna McMillan (drjoanna.com.au). "It takes roughly an hour to work off 2,000 kilojoules but you can eat that amount in only a couple of minutes."

For health and fitness goals, it's probably better to stick to non-food rewards like a hot bath, a trip to the movies or a manicure.



Planning

WHAT IT DOES: You've probably heard that 'failing to plan is planning to fail', but proverbial phrases aside, having a plan of attack take the guesswork out of whether you're going to skip the gym: "You will be more likely to stick to something when you can see it mapped out in front of you rather than just saying you want to do it," says personal trainer and triathlete Sarah Menlove. "And having specific exercises to target your individual goals means you have a plan of attack, so you don't get to the gym and slack off or wander around wondering what to do." Planning works by creating a routine and by keeping you psychologically accountable for your actions.

HOW TO DO IT: Any good plan starts with a goal (see 'goals' so you can set a good one). When you've found something that compels you, develop your plan around it. "Once you have your short- and long-term goals in place, you then need to schedule in your training, meal preparation and eating around your already busy life," says personal trainer Emma James. "This could be done in a diary, spreadsheet, daily planner on the fridge, mobile phone app – whichever works best for you."

"Talk to the team at your local gym and ask them to set out a training program for you or, even better, allow a personal trainer to take control and help you along your journey."

Music

WHAT IT DOES: There's nothing quite like the feeling you get when your jam starts playing. Music has been likened to a legal drug for athletes by exercise expert Costas Karageorghis, Ph.D. Research shows that listening to music during a workout can extend the duration before fatigue takes hold, effectively buying extra time (and, therefore, benefits). According to psychologist Dane Barclay, from Victoria's Performance and Sport Psychology Clinic (pspc.com.au), endorphins – the body's natural pain relievers – released in response to music can mask fatigue. "When we recognise that we are not enjoying something, our mind sends a spike of stress hormone cortisol to engage us in a behaviour that removes distress," says

Barclay. Think stopping running as a means of stopping the pain.

HOW TO DO IT: Dr Karageorghis suggests planning your playlist around the following things: Are you moderately familiar with the song? Does the rhythm match the motor patterns of the exercise you are doing? And is it motivating for you? Music is a highly individual thing, and getting lost in the lyrics of your favourite Black Eyed Peas song while you're mid sprint is more likely to cause distraction than foster performance. The speed (or beats per minute) of the music should ideally match your pace. Choose music of around 140 to 160 BPM for cardio like running and HIIT, and around 115 BPM for weights and walking.

Adam Fraser's THREE STEPS FOR DIAGNOSING YOUR MOTIVATIONAL ISSUES:

STEP 1: BEHAVIOUR

"The first step towards motivation is getting really clear about the behaviours you want to exhibit. If the goal is to lose weight and you ask yourself, 'How am I going to do this?' and your answer is 'By eating healthily and exercising', that's not going to work. The more vague the behaviour, the less likely we are to stick to it. Your chance of success is dramatically increased if you go: 'Here are the behaviours I exhibit and here are the behaviours I don't.'"

STEP 2: EMOTION

"So, you've joined the gym but you never go. Have you tried asking yourself why this is? If your answer is 'because I hate the gym', then there is your first problem. You're not going to do something you hate, so you have to make it more emotionally appealing."

STEP 3: ENVIRONMENT

"This is as simple as asking, 'Does my environment support and make that new behaviour easy, or does it make it hard?' So if I'm trying to diet but I have a partner who keeps bringing in chocolate cake or has wine at dinner, that makes it harder because my environment is not supporting my changes."

Nudge theory

WHAT IT DOES: Also called 'automaticity' or goal priming, the nudge theory is about little changes that essentially trick you into achieving your goals.

"Rather than trying to overtly change people's behaviour, the idea is to subtly direct people down a particular path by tweaking their environment," says health psychology researcher Dr Nicola Davies.

"This works by tapping into our two ways of thinking: automatic and reflective."

Automatic thoughts are those you fall into habitually and action without much hesitation, like hitting the snooze button, whereas reflective thoughts relies on a conscious effort to do things differently. "Nudging is about making the healthier option easier to execute than the less healthy one so that eventually the new way becomes automatic," Davies says.

THE IDEA IS TO
SUBTLY DIRECT
PEOPLE DOWN A
PARTICULAR PATH BY
*tweaking their
environment*

HOW TO DO IT: A nudge can be "anything that influences our choices". Like laying out your gym clothes the night before, putting your runners by the front door, or putting the vegies on the middle shelf. Priming your goals is about changing your environment so that it not only influences our choices, but also limits them. One Stanford University study found that the more we clutter the mind, the less likely we are to make reflective choices. In the study, researchers found that students asked to remember a seven-digit number were twice as likely to choose cake than peers asked to remember a two-digit number when presented with cake or fruit salad. If five extra bits of information are all it takes to make our willpower crumble, how do you think it's going to stand up to locating your gym pants in the laundry at 6am?



Self-inquiry

WHAT IT DOES: Also known as 'interrogative self-talk', self inquiry is about letting go of 'I can do it!' affirmations and instead acknowledging any doubts you have about what you are about to do and turning them into questions that beg rebuttal. Many negative thoughts originate from subconscious beliefs, which affirmations largely choose to ignore. Saying "I can" and "I will" works by making you more positive about yourself and your situation, but this has little sway if your subconscious fears surface and give you a list of reasons why you can't or won't. By acknowledging these thoughts and bringing them into your full consciousness, you can create congruence between what you're saying to yourself and what you believe. This means you can stop focusing on your unacknowledged inner conflict and start focusing on, well, being awesome.

HOW TO DO IT: A recent study in *Psychological Science* found that even something as simple as writing 'will I?' as opposed to 'I will' in an apparently unrelated writing task produced better intentions to exercise. But if you're thinking about peppering yourself up for performance – rather than pushing aside doubts and telling yourself you're sure you'll run faster today than ever before – acknowledge your fear that you'll barely make the 1km mark and roll it into a question such as: "Will I run my fastest time?" The answer? "Last summer I lost a few seconds in the heat, but I've never flunked out totally. I'll do what I can." ■

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Travelling Smart

We hope you're loving globetrotting through our Travel issue.

You're probably already looking forward to next month (I'll let you in on a secret; hoorah! it's the Careers issue!) Now we know how savvy you are, how you don't like to miss out and how you don't like to spend more than you have to.

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The *Science* of *stretch*

Make the most of muscle manipulation by updating your stretching skills.

Words by: Madeline Lakos

Whether you're as limber as an invertebrate or struggling to touch your toes, you've probably tried stretching at least once – and it's quite possible you were disappointed. Stretching has a somewhat elaborate reputation to maintain: it's been touted to prevent injury through warm-ups, prevent soreness in cool-downs and leave muscles as relaxed and lithe as a yogi on a retreat. In reality, mere stretching is capable of achieving only some of these things, and your success rate mostly depends on what and how you're stretching, as well as when and why.

In a nutshell: the need (or lack thereof) to stretch also depends on whether or not your body requires 'priming' or neuromuscular facilitation (aka motor patterns) prior to exercise, and, for post-exercise stretching, which of the muscles used during exercise have undergone the kind of stress that makes them tight. On top of this, what technique you choose – dynamic versus isometric, for example – will also play a role in the success of your stretch.

More complex than you thought? Stretching is actually quite an elaborate science, but one that's easily mastered with a little bit of body know-how. We're not promising stretching will always deliver, but by choosing your technique and timing wisely, you may be able to stretch your benefits...pun intended.

Techniques and technicalities

Muscles are made up of fibres called sarcomeres, which are responsible for muscle contraction (i.e. movement) by sliding one over the other, like a telescope. So when the muscle is stretched, the overlap between these sarcomeres decreases, allowing the

muscle to lengthen, but not indefinitely. "There is only a certain amount of length this can happen for the genetic predetermined length of our muscle; beyond this you are actually stretching connective tissue," says exercise physiologist and personal trainer Gabrielle Maston (gabrilemaston.com)

That 'pulling' sensation you feel when you stretch is actually a very clever move by your body to stop you from overdoing it. "The muscle fibres contain muscle spindles that are used for a reflex response to stop overstretch," says Maston. This is called the stretch reflex and it's caused by the spindles sending a very rapid message to your brain that lets it know to counteract the stretch. "The stretch reflex is what primarily prevents people from going to the muscles full range when they first start stretching," says Maston. "When you 'limber' up after a period of continuous stretching over a number of weeks, you are actually teaching muscle spindles to only activate at a new lengthened norm.

"So when you are stretching for flexibility, you are actually teaching the muscles to relax at longer lengths via the muscle spindles."

Flexibility is also a question of genetics, so although those toes don't seem too far away, your ability to touch them may be a predetermined fact.

"The limit of your flexibility has to do with length of limbs then length of muscles that move those limbs, so some people may be able to do things that others simply can't," says Maston.

Different styles of stretching will elicit different reactions from the muscle spindles, depending on the speed, intensity and duration of the stretch, and how it is performed:

BALLISTIC STRETCHING

Sometimes called 'bouncing stretching', ballistic stretching is pretty much a thing of the past. "It involves using a bounding movement in the stretched position in an attempt to force the muscle to stretch further than its current range," says Maston. Ballistic stretching was developed to prep the body for jumping and surging sports, like basketball or athletics, but has been proven to be largely ineffective. "Ballistic stretching often results in muscle tears, so I don't recommend it."



Example: reach as far as you can toward the ground with legs and arms straight. Then forcibly try to push yourself lower, by using a bouncing action. Repeat the bouncing for 10 to 15 seconds, then rest.



DYNAMIC STRETCHING

To the yoga lovers out there, this one is for you. Dynamic stretching is stretching with movement, like a sun salutation. “You move in and out of stretched positions, starting slow and sometimes gradually increasing in pace,” says Maston. “It’s not a jerky movement, it’s lengthening muscles in a controlled fashion.” As with ballistic stretching, dynamic stretching is designed to help prime your body for movement: “Dynamic stretching is for sports that have a high degree of skill, accuracy and precision involved, like footy or gymnastics, to warm up the muscles in the direction in which they have to fire,” says Maston. “All this is doing is getting the neural pathways from the brain to muscle fibres revved up before they start doing complicated exercise patterns.”



Example: In this stretch, start in a relaxed modified lunge position. Take a deep breath in, and as you breathe out, bend the front leg more till you hit a 90-degree angle at the knee joint; back leg should be straight. This will place you into a deeper modified lunge. The idea with dynamic stretching is that it’s a slow, continuous movement with no static hold. You can switch legs and repeat on the other side, or do multiple repetitions as a warm-up.



STATIC STRETCHING

Static stretching is stretching at its simplest. It usually involves stretching a muscle to the point of discomfort and holding it there for around 30 seconds. Static stretching is good for increasing flexibility and alleviating tension, but recent studies have shown that it’s actually not beneficial prior to exercise. One such study, published in the *Scandinavian Journal of Medicine and Science in Sports* found that static stretching prior to exercise has a negative effect not only on strength and power but also on explosive performance. The study concluded that static stretching as the sole warm-up activity prior to exercise should be avoided.

Example: Place the foot on a chair or bench and reach forward.

ACTIVE STATIC STRETCHING >>

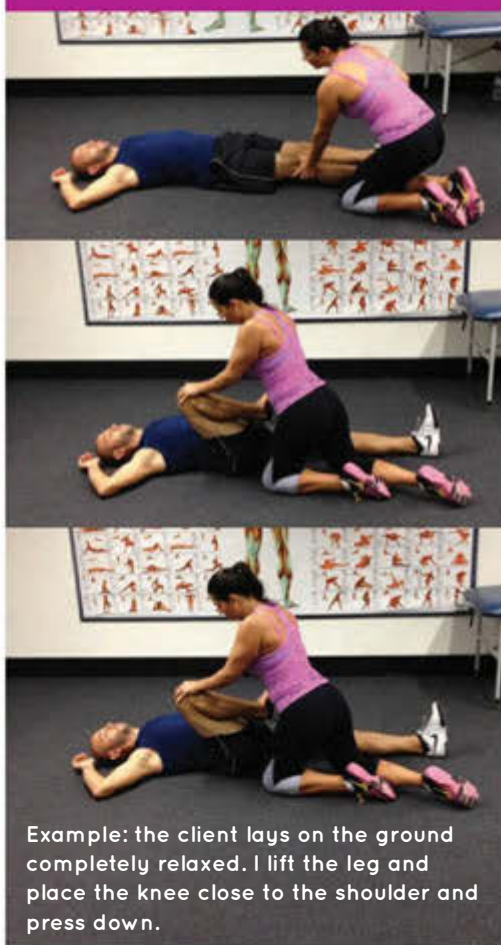
When you’re sitting at your desk and you raise your arms above your head for some much-needed relief, this is active stretching. “Active stretching is where you hold your body in a stretched position where muscles are activated, trying to hold the muscles in that position,” says Maston. Another example is holding your leg in the air to stretch your hamstrings while your quads and hip flexors contact to hold that leg up. “This activation of opposite muscle groups helps the hamstrings relax – this is called reciprocal inhibition.”

Example: start in a standing position, lift the knee and hold under your foot with both hands. Kick the leg out into a stretched position.



PASSIVE STATIC STRETCHING

Need a good excuse to get your gorgeous personal trainer up close and personal? Lets talk passive stretching: "Passive stretching is where there is no muscle activation of the person who is stretching, or in some cases being stretched," says Maston. This can be achieved either by getting another person to stretch the muscle or doing it yourself by, for example, lying on your back and holding your leg to stretch your hamstring, or (if you're able) doing the splits. Passive stretching is a good technique to use if you find other types of stretching difficult.



Example: the client lays on the ground completely relaxed. I lift the leg and place the knee close to the shoulder and press down.

ISOMETRIC

Isometric is a simpler way of performing contract-relax style stretches. "Isometric stretching is where you hold the muscle in a stretched position and then apply force and try to contract the muscle against the stretch," says Maston. An example of this includes stretching your hamstrings by putting your leg on a bar or beam, then pushing down against the stretch; or holding onto your foot while simultaneously trying to point your toes. "This causes inhibition of the stretch response because the same stretched muscles are trying to contract."

As it's not a passive stretch, isometric stretching has a slightly higher risk of injury compared to PNF stretching.

PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION (PNF)

PNF is the most scientific of stretches. It involves putting the muscle in a passively stretched position, then contracting it in the opposite direction for around 10 seconds. "This causes muscle spindles to switch off," says Maston. "The muscle is then pushed further into the stretch, the stretch is held and the above contraction-stretch cycle is repeated." This sounds complex, and it is. There are a few different techniques for performing PNF stretching, but the two easiest are:

CONTRACT-RELAX: where the muscle being passively stretched is contracted for 10 to 15 seconds, then relaxed and stretched further.

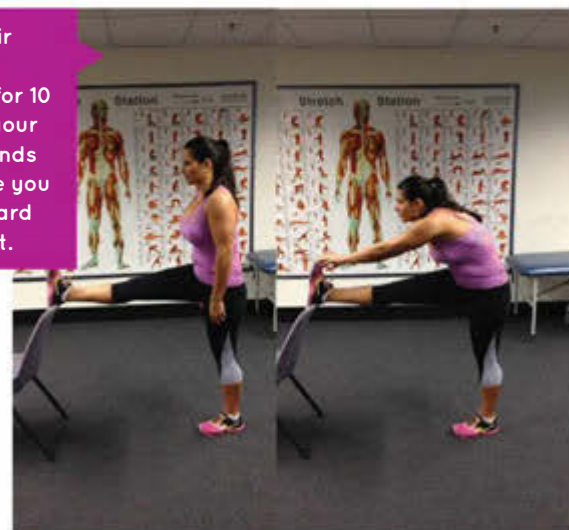
HOLD-CONTRACT-RELAX: where a muscle being passively stretched is contracted for 10 to 15 seconds then relaxed and stretched again. Then the antagonist muscles (the muscles that work against or in the opposite direction to that muscle that has been stretched) are contracted, like in an active stretch.

There is a recent study published in *Medicine and Science in Sports and Exercise* that found that PNF stretching – specifically the hold-contrast-relax technique – produced 110 per cent more muscle response, and 89 per cent more joint range of motion than stretching and relaxing alone.



Example: the client is laying on the floor, I am supporting his leg with my shoulder and arm in the lengthened position. I instruct the client to push against my shoulder with his leg pushing down in the opposite direction to the stretch. That tensed position is held for 10 seconds, they relax and I push the leg further into the stretch.

Example: place the foot on a chair or bench where you feel the leg stretch. After holding the stretch for 10 seconds, apply force down with your leg muscles. Hold this for 10 seconds then relax. Repeat, and each time you do this you can lean farther forward or lift the leg onto a higher object.



STRETCHING THE TRUTH

Any kind of stretching will release tension in the muscles. But what does this mean in the context of warm-ups and cool-downs? "The type of stretching you do will depend on your activity and exercise and what your goals are," says Annie Strauch (performancemed.com.au), a musculoskeletal and sports physiotherapist who specialises in dance and sports treatment. But, despite stretching's reputation, there are limits to what stretching alone can do: "There is research to suggest that stretching before or after exercise doesn't change your risk of injury or prevent injury, therefore it should be thought of as one component of an active warm-up and active cool-down."

So why stretch at all? Well, regardless of stretching's ability (or inability) to prevent injury, it can still prime your body for performance (depending on what you're doing), increase flexibility and restore balance post-workout.

WARM UP:

While having limber muscles might be good for your foray into yoga or gymnastics, stretching out your muscles prior to other activities needs to have a tailored approach. "Stretching should ideally facilitate neuromuscular coordination," says Strauch. "Static stretching may inhibit a muscle's neuromuscular function, or ability to contract appropriately for exercise. For example, if you were about to play a sport involving lots of short sprints and jumping, holding stretches for 30 seconds or more will not be preparing the body for the ballistic activities it is about to do."

Movement-based stretching styles (i.e. ballistic and dynamic) are ideal for warm-ups, but science has proven that they're not always effective. Ballistic stretching prior to jump sports for example. A study published in the *Journal of Strength and Conditioning Research* that trialled three different types of stretching (PNF, ballistic and static) found that ballistic stretching had the least derogatory effect on jump performance, decreasing it by only 2.7 per cent as opposed to four or five per cent. Dynamic stretching, on the other hand, has seen some positive results. Another study from the same journal found that dynamic stretching improved jump power (but not jump height or force).

To maximise your warm-up, Strauch recommends completing active (cardiovascular) exercises and coordination exercises (such as passing drills or hopping) prior to a dynamic stretch routine.

✓ **DO:** Dynamic stretching specific for your workout as part of a well-rounded warm-up.

✗ **DON'T:** Do prolonged or bouncing stretches. These reduce performance and/or increase the risk of injury.

WARM DOWN:

Post-exercise stretching is a little more inclusive than pre-exercise stretching. Working muscles may make them tight in the direction of work, so what you need to stretch depends on which muscles have been used, and how. "If you have been completing an activity that has been holding heavy weights or positions for periods of time, it may be useful to stretch these areas post exercise to restore the length-tension relationship of the muscle groups," says Strauch. This relationship between length and tension isn't easy to understand, but to put it simply: if a muscle is too short, it's ability to output force lessens, so you need to stretch it out so it can become efficient again.

So, which stretch is best for restoring your length-tension relationship? "Post exercise, dynamic stretching can be used to cool down, or, if you are wanting to increase your flexibility, more prolonged [static] stretching can be used," says Strauch. "Often a combination of both is useful in the cool-down."

✓ **DO:** Stretch areas that have been used and may have become tight from exercise to restore muscle efficiency.

✗ **DON'T:** Forget to stretch.

Stretch SELECTOR

PRE-EXERCISE

Dynamic stretching will help prime your body for movement. As a performance expert, Annie Strauch knows what moves will get you ready to...well...move!

RUNNING

- » High knees
- » Heels to bottom
- » Lunge with hands on ground moving forward

CYCLING

Crouching forward leaning over a chair, bending and straightening knees

SWIMMING

- » Standing, arms at 90 degrees, take one arm back, bring arms together then take the alternate arm back
- » Arms straight at 90 degrees in front with palms together, take one arm back and overhead to then return to original position; repeat with alternating arms

CROSSFIT

- » Split lunge forward, alternating legs
- » Split lunge with hands on floor, bending front leg, then straighten front leg somewhat (but keep hands on floor)

POST EXERCISE

Can't tell where you're tight? Good thing Gabrielle Maston knows:

RUNNING

- » **HIP FLEXORS:** on one knee and push the hip forward
- » **GLUTES:** lotus position and bending forward with the upper body

CYCLING

- » **CALVES:** dropping the heel down from a step
- » **GLUTES:** lotus position and bending forward with the upper body

SWIMMING

- » **LATS:** side bend standing
- » **TRICEP:** overhead stretch

CROSSFIT

- » **QUADS:** heel to bum
- » **HAMSTRINGS:** touch your toes ■



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ENDURA
SPORTS NUTRITION

AB FAT FREEDOM

Getting the body to relinquish midriff fat is tricky, but relatively easy. Ready, set, release.

The way your body hangs on to its fat stores is a bit like a CSI hostage situation. It takes specialist nous to convince it to come out with its hands (or hips) up. You can blame evolution for its ready storage of fat and zealous guard of fat stores, since historically the body was programmed to minimise the harm of famine. Now, however, not so good.

"We accumulate stored fat very fast," says Dr Pablo Enrriori, from Monash University's Metabolic Neurophysiology research group. "In 15 minutes you're going to get a lot of insulin in circulation. This is induced to accumulate fat in tissue as well as used in the form of glucose for muscles."

How to make your body use the right fuel at the right time to minimise fat storage and burn maximum stored fat? Ready, set, incinerate.

To address that massive elephant in the corner of the room, no, you can't spot-target belly (or any site-specific) fat. Yet you can mitigate conditions that favour storage of fat in the abdominal region while maximising overall body fat loss. (Translation, elicit a chick-pack in minimum time.)

Sprint systematology

Anaerobic interval training (short, sharp sprints) demands metabolic adaptation, meaning the body is forced to burn fat to maintain high intensity. As a fringe benefit, it also increases energy use for more than 24 hours post-workout. In a 2008 study, participants exhibited 12 per cent more fat burn during exercise in a six-week program orbiting anaerobic intervals. In a study the year before, active women who engaged in interval training experienced 36 per cent more use of fat for fuel during workouts in as little as two weeks and another study found that women who participated in regular 20-minute cycling intervals for 15 weeks encountered an average 2.5 kg of fat loss. Better, most fat was stripped from the abdomen and legs. The control condition, steady-state aerobic exercise, resulted in zero fat loss.

The biological explanation is anchored by preferential fuel substrates, which depend on both type of training and duration. While aerobic exercise favours carbs first and kickstarts mechanisms that can result in muscle decline or catabolism, high-intensity exercise such as kettlebell swings and sprints burn a greater percentage of fat while conversely piquing pathways that spur muscle growth. Intervals also elicit greater post-exercise oxygen consumption (EPOC) than a steady half-hour treadmill power walk. Anaerobic exercise also raises levels of growth hormone (GH), which promotes fat burn and muscle building beyond levels seen in aerobic exercise. Another fat-burning hormone, adiponectin, is also released by fat tissue during high-exertion muscle contractions.

The cortisol connection

Cortisol is notoriously known as the stress hormone that cruelly also facilitates fat storage – particularly around the abdomen – and promotes muscle catabolism. While corporate types and business owners are in the firing line, physiological stress – and that includes exercise – can also pique cortisol. One study found that aerobic athletes had significantly more cumulative cortisol secretion in their hair than non-athletes. In a cortisol showdown, anaerobic training elicits lower cortisol spikes than aerobic moves because while short, sharp sprints and lifts do stimulate cortisol, they also invite growth hormones such as testosterone, a cortisol antagonist.

Calorie factor

You've heard the adage, 'abs are made in the kitchen'. But if you don't want to confine yourself to boiled chicken and sweet spuds, that's not the end of the ab story. You've basically got six hours to burn up food energy before it starts to make its way to your midriff/hips/butt. "Six hours is when we start to store that body fat, but if by lunch you've overeaten and starting to store fat, you've still got half a day to fix it by either going to the gym and burning it off or reducing the amount of food you're eating later in the day," says Matt O'Neill, exercise physiologist and dietitian from Metabolic Jumpstart. The key now is burning glycogen, which if allowed to accumulate to overload proportions, will be stored as fat, and burning maximum kilojoules to negate any energy surplus. (While an extra 400 kJ here or there won't equal fat gain, energy excess does compound and will over time result in extra fat.) Sub-30 minute aerobic exercise can prevent new fat stores but not erode the old ones. In other words, doing aerobic exercise first exhausts creatine and glycogen reserves without burning much fat.

Putting it all together

Once it's holed itself up inside, fat is incredibly stubborn. Don't expect it to capitulate on request. First you need to haggle, burning up preferred macromolecules creatine, phosphate and glycogen. These provide quick energy for short-term, high-intensity exercise, or fuel for the early stages of moderate-intensity workouts. The type and duration of exercise determines which macromolecule is metabolised first. At about 30 minutes, the body switches from primarily metabolising glucose to favouring fatty acids. In lay parlance, that means it can efficiently tap into free fatty acids (FFAs) derived from lipids in body fat. Last in the chain are amino acids derived from muscle protein. To reap the perks of a fat-burning workout, 40 minutes is the magic threshold. To really work the science, add a subsequent anaerobic session – weights or other – to tap into the dearth of energy reserves needed for glycolysis and force the body to burn fat. According to MedFitness, the best strategy for maximum fat burning is 30 minutes of weights followed by cardio, which will primarily use fatty acids for fuel, reducing body fat. Bonus: since most fuel is now FFAs, muscle protein is largely spared. "If you lose weight too fast, you're likely to lose a quarter to a third of your weight loss as muscle, and that directly compromises your metabolic rate," O'Neill says.

TO FAST OR NOT TO FAST?

Intuitively it feels as though working out on an empty tummy will force your body to burn fat stores during your workout. In the absence of preferred fuels, that's true, and since glycogen depletes overnight, fasted gymmers have a point. But here's where it comes unstuck. "You'll burn a slightly bigger percentage of fat but do you feel energetic enough to work out sufficiently before breakfast?" asks O'Neill. In other words, you may burn a bigger slice of the pie from fat but lose the edge when you can only reach 50 per cent intensity rather than 70. The other cruel caveat is that survival mechanisms may cause you to overcompensate with subsequent meals by dialling up your hunger beyond what your body needs to function. "You've got a whole day to cancel out the benefits of what is really a marginal difference in fat burning," O'Neill warns. Dr Enriori says excessive caloric deficits provoke a physiological crisis response that works against fat loss. "As soon as you start losing weight, you start to lose energy expenditure." Get the Ts and Cs of compensatory noshing from p. 104. ■



Want strong sexy legs and a tight body all in one powerful, time-saving workout? This workout is designed to strengthen, build speed, muscle and agility and melt serious fat as a nifty fringe benefit.

Presion EXPLOSION

**ONE WORKOUT FOR EVERY PART
(WE CALL IT A MIRACLE)**

Words and workout: Tiffany Gaston // tiffanyleegaston.com
Photography: James Patrick // jamespatrick.com

In the old days, people believed that sculpting muscle and burning fat were mutually exclusive. At worst you needed to choose one to do first; at best, you needed to plug separate workouts into a schedule more complex than Barack Obama's iCal. Little wonder plyometric workouts are winning fans. Intense workout that can be done anywhere? Check. Little or no equipment? Check. Results in minimum time? Che-eck.

The other perk of plyo is its supreme plateau-busting capacity. Simply adding some of these moves between your regular sets will keep your body guessing and promote maximum burn by keeping your heart rate elevated throughout your training. The kicker is that you need to give it your all. To get the most out of these quick and intense movements, you must push hard since it's the moves' explosiveness that will change your body. You'll thank us when you're stronger, more agile and leaner than diet bacon!

Workout:

Perform three sets of the following nine plyometric moves
30 SECONDS REST
30 SECONDS WORK
TOTAL WORKOUT: 27 minutes

- Skaters
- Jumping Lunges
- Jump Squats
- Narrow-Leg Jump Squats
- Sumo Jump Squats
- Frog Hops
- Tuck Jumps
- Box Jumps
- Pop Squats on Step

SKATERS

(ABDUCTORS, QUADS, GLUTES, HAMSTRINGS)

In a slightly lowered squat position, jump as far to your left as you can and land on your left foot. Your right foot will remain elevated off the floor and land behind your left knee. Do not allow your right foot to touch the floor. Reverse direction back the other side and land on opposite foot.



JUMPING LUNGES

(QUADS, GLUTES, HAMSTRINGS)

Step one leg in front of the other in a lunge or 90-degree angle. Explosively jump and switch legs in the air.



JUMP SQUATS

(GLUTES, HAMSTRINGS, QUADS)

Begin in a lowered squat position with your feet shoulder-width apart. Explosively jump up and land back in the squat position. Careful to maintain good form and prevent your knees from extending beyond your toes in the squat or landing position.



NARROW-LEG JUMP SQUATS

(QUADS, GLUTES)

Begin in a squat position with feet two inches apart. Explosively jump up and land back in the squat position. Careful to maintain good form and prevent your knees from extending beyond your toes in the squat or landing position.



SUMO JUMP SQUATS

(ADDUCTORS, GLUTES, QUADS)

Begin in a wide stance or sumo squat position. Explosively jump up and land back in the sumo position.



FROG HOPS (GLUTES, QUADS, HAMSTRINGS)

From a squat position with your arms straight back, utilise their momentum as you jump as far forward as you can and land softly in a squat position.



BOX JUMPS

(GLUTES, QUADS, HAMSTRINGS)

Begin with knees soft and feet shoulder-width apart. Explode upwards, landing softly on the box. Step or carefully jump back down and repeat.



POP SQUATS ON STEP

(ABDUCTORS, ADDUCTORS, QUADS, GLUTES, HAMSTRINGS)

Begin by straddling a step. Explode upwards and land with feet together and in a slight squat position on the step with soft knees. Jump back out, straddling the step, and repeat. ■



TUCK JUMPS

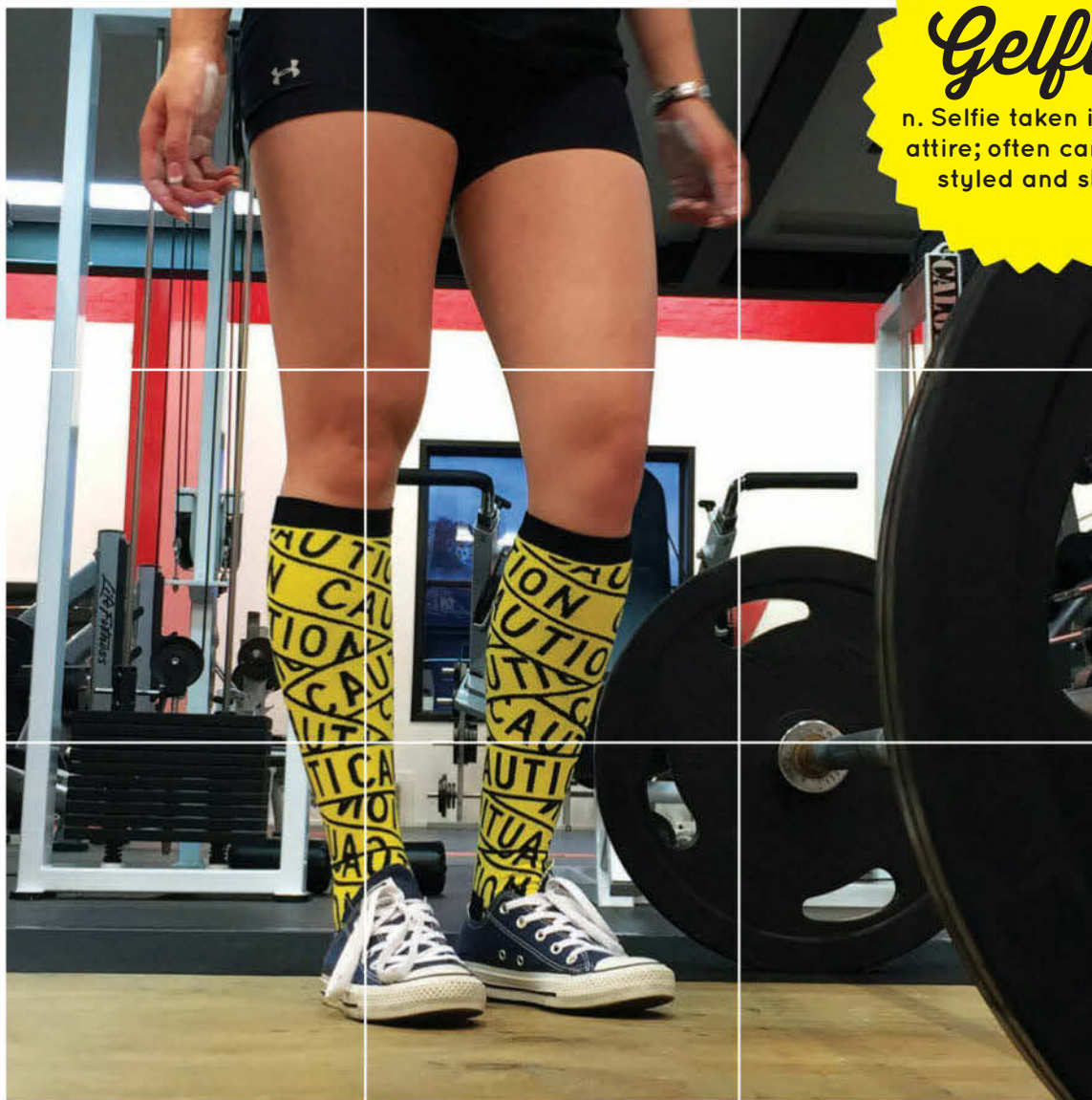
(CALVES, QUADS, HAMSTRINGS)

Begin by standing upright with feet no more than shoulder-width apart. Explode upwards into a tuck jump and raise your knees to chest at the top of the movement.



Gelfie

n. Selfie taken in gym attire; often carefully styled and shot.



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Want to be part of our raw fitspo?

Watch our Facebook page for callouts or send your photos to gelfies@womenshealthandfitness.com.au (Filter free, please.)

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WHANDFMAG



Core Belief

COUNSEL/WORKOUT: HOLLY BARKER (PICTURED)
PHOTOGRAPHY: JAMES PATRICK // JAMESPATRICKPHOTOGRAPHY.COM

When it comes to core work, physiology has a bit in common with psychology. While strengthening muscles that support skeletal structure – especially your spine – enable you to stand up, maintain Kate Middleton posture and, well, move, the psychic equivalent (a strong sense of self) fosters resilience in the face of life's slings and arrows. Aside from making a great metaphor, this tandem makes sense in terms of out-of-gym success. Strengthening your physical centre affords freedom to run, trek the Andes and tote two kg of kale around the farmer's market, but it might also translate to greater mental solidity. Science calls the relationship between body and mind 'embodied cognition', which basically means you can use your body to influence how you feel. A Harvard study demonstrated the link by measuring the impact of postures deemed 'expansive' and 'constrictive' on participants' experience of their own power and risk tolerance as well as secretion of hormones testosterone and cortisol, which relate to dominance and stress respectively. People who practised expansive poses were more likely to take part in a gambling activity and reported feeling more powerful than those in constrictive positions. They also experienced lower cortisol and higher testosterone, suggesting lowered stress and heightened propensity for dominant behaviour. To paraphrase, your ripper abs might come with a side of boldness. Add these core moves to your regular workouts a few times a week for optimal strength and washboard factor.

Solid Centre Series

Repeat moves below in sequence for four rounds.

Plank Series

BASIC PLANK

In a push-up position, form a straight line from your head to your toes. Keep your pelvis tucked, your spine and neck neutral and shoulders relaxed and away from your neck. Breathe and hold for 60 seconds.



VARIATION 1 SIDE PLANK

Position on your side, elevated with your elbow on the ground below your shoulder, form a straight line from head to toe. Position feet parallel, one on top of the other. Breathe and hold for 60 seconds.



VARIATION 2 SIDE PLANK REACH

Elevate Plank Variation 1 – Side Plank – by reaching straight up with your top arm and leg. Perform 10 reaches per side, holding at the top and coming back down to the Variation 1 – Side Plank – each time.



VARIATION 3 SIDE PLANK WITH KNEE TOUCH

Elevate Plank Variation 1 – Side Plank – by dropping your top elbow and raising your top knee towards each other. Perform 10 reaches per side, holding at the crunch and coming back to Variation 1 – Side Plank – each time.



VARIATION 4 BASIC PLANK WITH MOUNTAIN CLIMBER

Elevate the Basic Plank by dropping your body down to a push-up position, elbows bent, and reaching one knee towards the same-side elbow. Repeat one side after the other. Perform 10 touches per side with quick switches from side to side.

Crunch Series



BASIC CRUNCH

Lie flat on the floor with your pelvis tilted towards your belly button, back neutral and elbows bent, hands to the side of your head (do not wrap hands behind head or neck, this causes tension on your spine). Keeping your heels on the floor

throughout the movement, exhale as you crunch towards your pelvis and hold briefly at the top of the movement. This is not a large movement from start to finish; it is a small and effective crunch. Repeat movement 10 times.

VARIATION 1 TOE TOUCH

Toe Touch – Lie flat on the floor with your pelvis tilted towards your belly button, back neutral and arms straight, parallel to your torso. Crunch your torso towards your pelvis to elevate you to starting neutral position. Crunch side oblique, bringing your hand towards your heel, returning to neutral elevated position and repeating on opposite side. Perform crunch side to side, returning and pausing at neutral each time. Perform 10 crunches per side.

V-Sit Series



V-SIT

Start with legs straight and elevated and arms straight, parallel to your ears. Raise your legs and arms towards each other, raising your torso to form a V. Breathe out at the top of the movement and inhale as you return to starting position. Repeat movement 10 times.

VARIATION 1 BALL EXCHANGE

Start with legs straight out holding an exercise ball between your feet, and arms straight, parallel to your ears. Raise your legs with exercise ball and arms towards each other, raising your torso to form a V and switching the exercise ball from your feet to your hands, resuming back down to start position. Switch the ball back and forth between your hands and feet 10 times. (If you do not have an exercise ball, use a pillow instead.)



VARIATION 2 HAND TO SHIN

Start with legs straight out and arms straight above, parallel to your ears. Raise one leg and opposite hand towards each other. Return to start position and repeat on opposite side. Breathe out at the top of the movement and inhale as you return to starting position. Repeat movement 10 times.



VARIATION 3 ELBOW TO KNEE

Start with legs elevated in a V, bending at one knee and arms bent, hands by ears. Crunch one elbow to reach opposite bent knee. Breathe out at the top of the movement. Repeat movement 10 times per side.

All of the above can be done without leaving home. Yes, you can leave the heater on! Wishing you a strong month. Remember to enjoy your strength and celebrate your self-care! ■

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3-Minute MAGIC MARBLE CHOCOLATE CAKE

Replaces:
Chocolate cake,
marble cake,
coffee cake

WHAT YOU'LL NEED:

- ¼ cup egg whites
- 1 tbsp coconut flour
- ¼ tsp each baking soda and baking powder
- 2 tbsp vanilla protein powder
- 2 tbsp melted organic 75% or higher chocolate

WHAT YOU'LL DO:

1. Mix the first four ingredients in a bowl by hand with a whisk or in a mini blender.
2. Spray a mug or jar lightly with oil.
3. Pour the mixture into the mug and pour the chocolate on top.
4. Use a butter knife and swirl through the chocolate so it swirls and filters through the cake mixture deep in the cup or jar. You

are creating a marbling effect.

5. Microwave the mug or jar on high for two minutes, 30 seconds (you might need an extra minute depending on your microwave's power).

6. Remove from microwave and turn upside down on plate to remove from mug or leave in jar or mug to serve. Eat as is or sprinkle with chocolate shavings. Bon appet-fit!

NUTRITION (per serve):



VS



KILOJOULES

965kJ

1,680kJ

CARBS

13g

66g

SUGAR

1.5g

53g

PHOTOGRAPHY: THINKSTOCK



Recipe by
RITA CATOLINO
yourbeautyfuel.com

"This has been one of my go-tos for the past eight years, since I started competing. It's perfect for the late-night kitchen raid when you want something sweet, moist and 'cakey' without having to bake up a storm or throwing your macro balance out. All you need are a few ingredients, a coffee mug or jar and a microwave!" ■

YOUR BEST >> MOVE IT

In a world obsessed with words like 'ambition', it's easy to get carried away in collective pursuit of idealised outcomes. This month, we suggest taking a breath, writing down your values and consciously deciding what it is you really want. If it's thighs of steel, go ahead. But if you just want to be able to do 10 push-ups, remember that's a valid choice too. You don't owe anyone an explanation for what's best for you.



RAW FITSPO

Own it

To stay focused, one of our fave fitness models, Theresa Jenn Lopetrone, tells herself, 'If you can take it, you can make it!' But she's decidedly level-headed about fitness goals. "Somewhere along the way, we decided that chasing these perfected images was more important than focusing on our overall wellbeing," she says. "Some women are willing to put their health at risk just to obtain that special number on the scale, a specific placing on stage, or a certain body fat percentage for a photo shoot... it's best to use that energy towards creating healthy habits that work for you and will prolong your life; this is fitness."

As a self-confessed fan of our new Raw Fitspo section, Lopetrone has shared some of her go-to affirmations to help you host a personal pep rally.

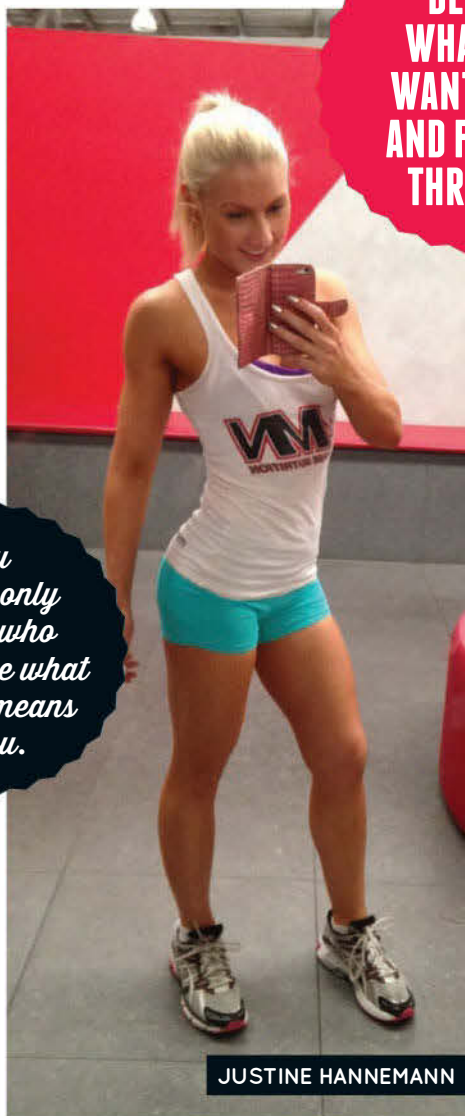


Want to be part of our raw fitspo? Watch our Facebook page for callouts. (Filter free, please.)



LISA DENBLYDEN

You are the only person who can decide what healthy means to you.



JUSTINE HANNEMANN

DECIDE WHAT YOU WANT TO DO AND FOLLOW THROUGH.



VALERIE ZUNIGA



ROWENA CALDERWOOD

Celebrate
EACH
MILESTONE
AND NEVER
FORGET WHERE
YOU STARTED.



STEPHANIE HAMMERMEISTER

EVERY *mistake* YOU MAKE IS AN OPPORTUNITY TO LEARN AND *become better* AT WHAT YOU DO.



KEYLA FLACHI CACERES

You will never *regret a workout.*



MARIA STIUSO

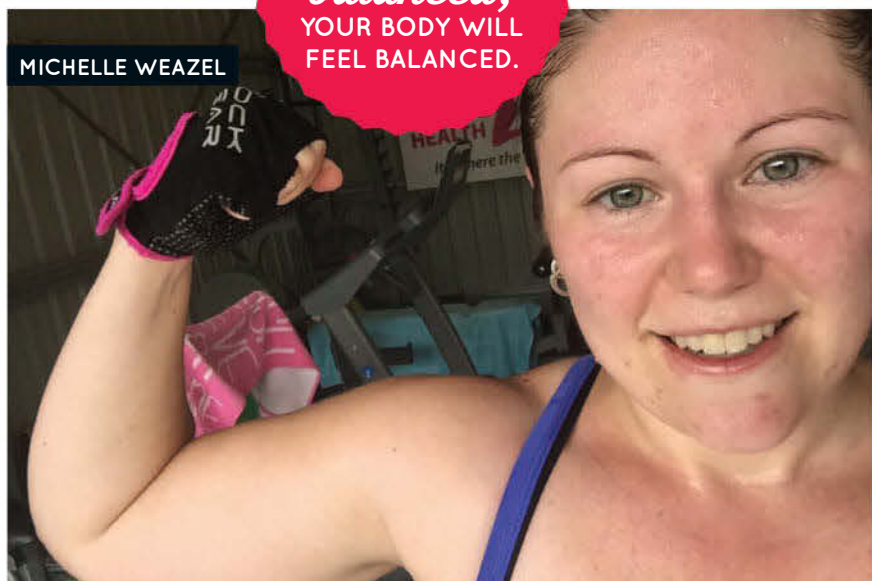


MARCELAS BIGUZAS



MARIANNA GAROASDOTTIR

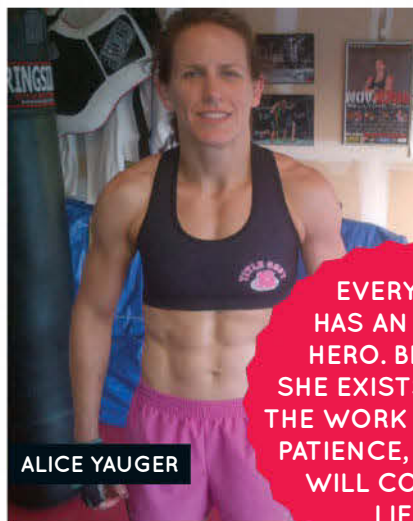
WHEN
YOUR MIND
feels
balanced,
YOUR BODY WILL
FEEL BALANCED.



MICHELLE WEAZEL

FOCUS ON THE
ACCOMPLISHMENTS YOU
SET OUT TO DO TODAY
AND TODAY ONLY.
*Focus on tomorrow
tomorrow.*

CHOOSE TO 'FAIL FORWARD' INSTEAD OF
SULKING AND SABOTAGING YOURSELF.



ALICE YAUGER



GEMMA HEBDON

EVERYONE
HAS AN INNER
HERO. BELIEVE
SHE EXISTS, PUT IN
THE WORK AND HAVE
PATIENCE, AND SHE
WILL COME TO
LIFE.



AMANDA SOLIS

*Eat for
health and
longevity,
train for
functionality.*

Immigration
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Tourist Office
25

FREEDOM

YOUR BEST ADVENTURE ✈



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SPAIN

Whether you want to replace doing with being or fast-track your fitness goals in a luxe exotic locale, we've found a retreat to suit.

RETREAT

Remix



Fitness and weight loss



Wellness/spa



Yoga/spiritual

If your idea of a holiday is hot-footing it from one gallery to the next (via a rooftop bar and Michelin restaurant), you're probably not the target for so-called 'wellness tourism'. But a heck of a lot of people are trading traditional vay-cay staples for less active getaways, with so-called 'wellness tourism' now worth \$462 billion a year worldwide according to a Global Health and Wellness Report. The industry's revenue is tipped to swell to \$715.6 billion by 2017 – 50 per cent faster growth than the conventional tourism sector.

"We have seen a definite shift in the market towards active and healthy holidays and general acceptance of alternative therapies in Australia. With living longer and working later in life, we need to take good care of the bodies we are in," says director of Health and Fitness Travel Samantha Lippiatt. Whether you're keen to fast-track your fitness goals, need space to restore perspective or just want to revel in a dearth of obligations to do anything more than lie back and have your arms slathered with fragrant oil, there's a retreat or wellness destination to suit.

To the airport, driver.

TONE IT UP & DETOX IN THAILAND

Phuket Cleanse Detox & Fitness

Best for: Healthier lifestyle seekers

\$: From \$2,590 or \$2,875 for single occupancy (seven nights)

Save the date: On demand

Turn your life around on an invigorating fitness and detox holiday at Phuket Cleanse in tropical Thailand. Tone it up with a plethora of daily fitness classes and activities, from high-intensity interval training on the beach to ocean kayaking and hot yoga sessions. Boost weight loss and combine your workout regime with a cleansing detox of raw vegan cuisine and healthy juices that strengthen the liver and kidneys and help give your body hydrating electrolytes. Recharge after an active day with invigorating ice baths and rejuvenating spa treatments and learn to live a healthier lifestyle with raw cooking classes.

GET PUMPED IN IBIZA

38° North Ibiza Optimal Fitness Group Retreat

Best for: Sun-seeking fitness fans

\$: From \$4,800 or \$5,150 for single occupancy (six nights)

Save the date: On demand

Discover another side to the party isle as you find your fitness and tone up in Ibiza on an optimal fitness group retreat with 38° North. Enjoy the beautiful island of Ibiza with a week's fitness holiday of exploring your limits and working hard with four to five activities per day. Choose from a selection of activities like mountain biking, guided hiking, beach circuits, aqua spinning, yoga, or even, for those who don't mind making a splash, stand-up paddle boarding. Recuperate with deluxe spa treatments and you'll bounce home feeling as good as new in optimal health and fitness.



PERSONALISED FITNESS IN ST LUCIA

The BodyHoliday Fusion Fitness

Best for: Fitness fans who know what they like

\$: From \$5,385 or \$5,235 for single occupancy (seven nights)

Save the date: On demand

Get your heart pumping on the idyllic island of St Lucia with a personalised Fusion Fitness holiday at The BodyHoliday. Tailor-make your ideal healthy holiday with your favourite active pursuits and achieve your fitness goals from a choice of one-on-one activities from ocean kayaking to kettle bell training, Pilates and box fit. Perfect for releasing stress-stabilising endorphins, keep active with further complimentary group fitness classes and a host of land and water sports, including yoga, tennis and water-skiing. With daily spa treatments included in your stay, return home from this active fitness holiday with a glowing sense of holistic wellbeing.



HOLISTIC HEALING IN THAILAND

Kamalaya Destress Asian Bliss

Best for: Fans of Asian holistic healing traditions

\$: From \$3,265 or \$4,070 for single occupancy (seven nights)

Save the date: On demand

Pamper yourself in paradise at the award-winning luxury wellness and holistic spa resort of Kamalaya, located on the south coast of Thailand's Koh Samui island. Destress and renew your energy as you experience a range of Asian holistic healing traditions, combining Ayurveda, Chinese medicine and Thai therapies, with a choice of over 70 spa therapies, integrating holistic medicine from East and West. Combined with personal wellness consultations, learn vital energy practices through a choice of private yoga, meditation, Reiki or Pranayama for a holistic healing holiday that will enhance your health and wellbeing.

STRESS MANAGEMENT IN SPAIN

SHA Anti-Stress

Best for: Victims of stress and burnout

\$: From \$7,000 or \$7,875 for single occupancy (seven nights)

Save the date: On demand

Unwind and banish stress at the pioneering SHA Wellness Clinic in Spain, offering burnt-out clients an escape from the strains of everyday life. Boasting unparalleled surroundings of the Spanish countryside and beautiful beach in L'Alfas del Pi, SHA provides the perfect environment to reduce stress levels on a luxury spa break. With a tailor-made approach, target chronic stress symptoms including a lack of focus, lethargy, irritability, headaches, migraines and feelings of anxiety. With an all-encompassing approach, a team of experts will design a highly personalised plan covering nutrition and exercise, alongside a rejuvenating selection of stress-releasing spa treatments.



HOTSPRING REVIVAL IN MALAYSIA

The Banjaran Rejuvenation

Best for: Outdoor wellness fans

\$: From \$5,320 or \$7,630 for single occupancy (seven nights)

Save the date: On demand

Find peace and serenity beneath the towering Paleozoic limestone hills of Malaysia at this luxury wellness spa retreat. Drawing on its natural surroundings, rejuvenate with a series of unique features, including geothermal hot springs dipping pools, an ice bath and meditation cave. Inspired by the ancient traditions of Malay Ramuan, Chinese medicine and Indian Ayurveda, more than 40 healing treatments are available to choose from. Restore calm and energy back into your system with therapies including aromatherapy massages, antioxidant restoration treatments and organic rejuvenation facials, designed to leave you feeling re-energised and totally transformed.

EXPERIMENT WITH YOGA IN THAILAND

Absolute Sanctuary Yoga

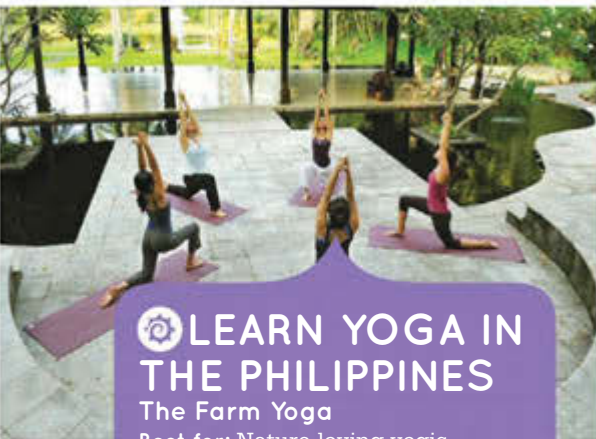
Best for: Yogis looking to expand their practice

\$: From \$2,750 or \$3,180 for single occupancy (seven nights)

Save the date: On demand

Escape on an adventure to the beautiful Thai island of Koh Samui and discover a haven for yogi lovers at this luxury wellness retreat. With up to 25 classes a week, experiment with and discover various types of yoga through unlimited classes including Ashtanga, Yin-Yang, pranayama and Hot Flow. Following many years of experience running Absolute Yoga, this yoga retreat can even offer teacher accreditations in yoga. Shake things up with additional complimentary classes from Thai boxing to aqua power and Pilates to meditation. Refuel with fresh juices and smoothies each day and enhance your healthy holiday with a visit to the spa and detox centre.





LEARN YOGA IN THE PHILIPPINES

The Farm Yoga

Best for: Nature-loving yogis

\$: From \$3,705 or \$4,300 for single occupancy (seven nights)

Save the date: On demand

Feeling daunted by the prospect of getting into those seemingly impossible yoga positions you've seen? Head to the Philippines and learn yoga at The Farm San Benito, a luxury wellness retreat famed for its back-to-nature approach to emotional and physical health. You'll receive one-on-one yoga sessions with an expert who'll carefully guide you and help you to understand your body. Compliment your yoga holiday with access to daily wellness activities such as meditation and circuit training, then recuperate with spa treatments, to ensure you come home renewed and ready to continue your practice.

FIND YOURSELF IN INDIA

Shreyas Silent Retreat

Best for: Those in search of peace and quiet
\$: From \$4,020 or \$5,000 for single occupancy (seven nights)

Save the date: On demand

On the outskirts of Bangalore in India is an award-winning sanctuary of peace and tranquillity. Begin your divine journey with a wellness consultation that will help tailor your silent retreat to your exact needs. Using the ancient spiritual traditions of yoga, meditating techniques are taught in ashram style. Relax in silence and regenerate with the ancient pranayama yoga discipline, free your mind with a trataka candle meditation session and reduce tension with a yoga nidra that brings you into a sleep-like state. Following meditation, rejuvenate with a range of massages including Swedish, Thai and Abhyanga on your path of self-discovery.

Therapy Vay-Cays: Fad or Fix?

No longer reserved for A-listers, out-of-town rehab is gaining traction as an alternative to inpatient and day programs for everything from alcohol and drug addiction to eating disorders. In fact, certain locales are winning tourism acclaim on the strength of their luxe rehab facilities. While they're not spruiked on tourism websites or Instagram, a number of 'therapy' retreats now fleck the Byron Bay hinterland. Likewise northern Thailand's laidback capital Chiang Mai, where exclusive addiction treatment centre The Cabin counts Australians among its core clientele. About a third of patrons undertaking the globally popular cognitive behavioural therapy – a common type of psychotherapy – are Aussie. Of course, clients also benefit from being a world away from stressors that triggered or fuelled dysfunctional coping mechanisms – think excursions leveraging the tropical environs.

"There's about four hours a day where psychological therapy is of benefit – beyond that, patients can reap the benefits of the activities and surroundings, which is a key factor in people seeking treatment abroad," says director and co-founder of The Cabin, Simon Lewis.

"It's well known that getting clients away from their current environment is conducive to increasing the chances of recovery."

Psychologist and CEO of Odyssey House Victoria Dr Stefan Gruenert agrees.

"I think there's something innate about getting away from your usual environment, whether that be breaking connection with people you know or being in a beautiful setting that lends itself well

to reflection on your life and your future and the goal you want to set for yourself," he says.

Dr Gemma Blackwood, a lecturer in cultural studies at The University of Melbourne, says rehab tourism has long been a niche healthcare sector.

"For example, the town of Bath in England was established by the ancient Romans as a place for relaxation and for health benefits."

At Byron Bay's exclusive The Bay, clients are offered yoga and meditation and acupuncture alongside clinical treatments.

"Patients start with a detox attended by a medical team," says the centre's John Dass. "They receive 24-hour care with psychotherapy every day as well as holistic treatments like acupuncture, yoga and mindfulness meditation, which help with addiction and depression."

Nearby, The Sanctuary is similarly intensive. "The client is the only person in their half [of the centre] with all the practitioners focusing on them," says The Sanctuary's Jane Williams. "They're not involved in a group program as the program is tailored to their physiological, psychological and emotional needs."

There is, however, an important distinction between bad habits and destructive behaviours or thoughts, says Williams.

"Rehab generally comes into play when other things haven't worked and people need a more intensive intervention."

It's normally for people who really need to have an

intensive, in-house, in-patient focus on their addiction," she says.

"They've tried detoxing at home and it hasn't worked so they need to come somewhere that's out of their normal living environment and have an intensive burst where they're not distracted

by the daily requirements of

running a home or going to work." It can be suitable for chronic pain and mental health conditions such as anxiety and depression, and addiction."

Most facilities offer month-long programs with extension options. A 28-day program at The Cabin costs approximately \$12,000 – an estimated third of the price of Australian rehab facilities. ■

We book our health, fitness and wellness vay-cays through Health & Fitness Travel, the experts in tailor-made healthy holidays – all hand picked by an expert team. Check out their exclusive offers for less-ordinary healthy holidays at healthandfitnesstravel.com.au





OFFSHORE upgrade

First-class medical facilities with cut-price fees have spurred a boom in cosmetic vay-cays. We follow the flight path.

Combining travel with cosmetic surgery is no longer for extremists. Just as Internet dating ditched its stigma when a critical mass of alumni reported getting married, travelling abroad for a boob or nose job lost its fringe status with a boom in mainstream operators offering cosmetic tourism packages.

The movement was well underway in 2005 when a University of Sydney paper reported increasing outbound travel by Aussies for medical purposes.

"Medical tourism has grown dramatically in recent years, primarily because of the high costs of treatment in rich-world

countries," writes the paper's author John Connell. The worldwide medical tourism market is growing at 10 to 25 per cent a year according to consumer information body Patients Beyond Borders (patientsbeyondborders.com), with around 15,000 Aussies leaving home for medical procedures, their figures show. Breast augmentation, butt lifts and Botox rank among popular procedures.

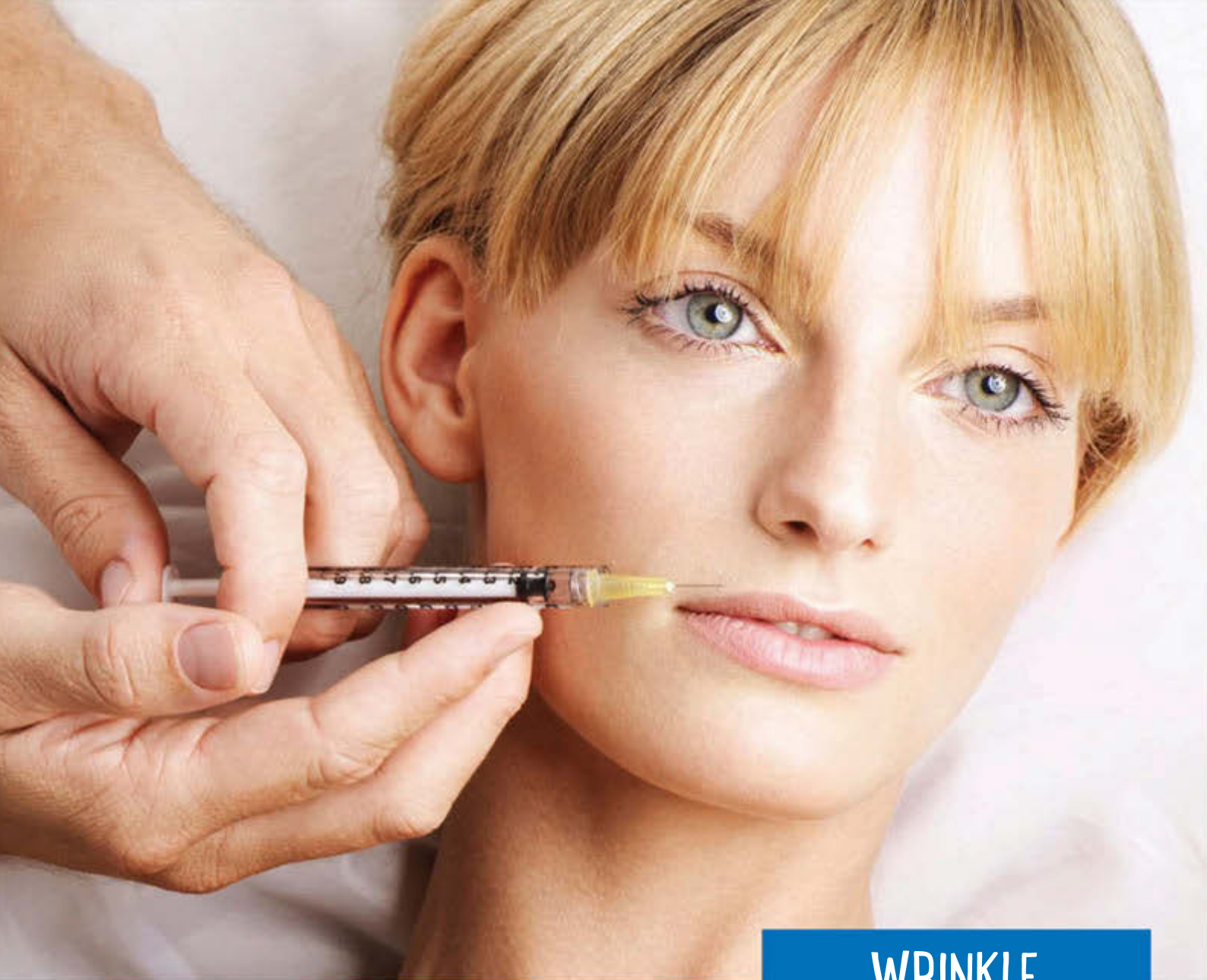
Return on investment

Affordability is a key lure for overseas surgery candidates according to a 2013 University of Michigan paper. Yet while the question of false economy should be asked by anyone considering

cosmetic travel, cost savings are largely due to lower salaries for highly qualified doctors in countries like Thailand. Add lower hospital fees and cheap flights from Australia and the pricing makes sense.

"There has been an increase in recent years due to the high cost of medicine in Australia and of course the high Australian dollar, which makes the cost element even more attractive," says Dr John Flynn, censor in chief at the Australasian College of Cosmetic Surgery (accs.org.au). Savings can range from 25 to 90 per cent compared to domestic procedures – and that's after accounting for a luxe hotel suite and cosmopolitan.

"You're able to recover in a place where you don't have to unpack the dishwasher and take that step back from everyday life," says founder of Somnio, an Australian cosmetic tourism agency, Virginia Riddle-Cross. The agency's most popular bookings are breast augmentations, tummy tucks and mummy makeovers (multi-procedure body renovations). Riddle-Cross attributes the company's success to the peace of mind provided by an Australian point of contact. "You can ask millions of questions of someone who's accessible and speaks fluent English," Riddle-Cross says. Once you've chosen your operation, surgeon (they'll email



you CVs to vet) and hotel, you can kick back and relax. "What we promote is being able to recover in a relaxed environment away from day-to-day obligations, stresses and pressures. As a mother, I know life doesn't stop because you've had an operation," says Riddle-Cross, whose business doesn't charge agency fees.

Medi Makovers offers a similar service. Candidates for breast implants can save as much as 77 per cent, or \$11,600 on the procedure that costs \$10,000 to \$15,000 in Australia, says Medi Makeovers' Zara Pratico (see table).

Safety first

If it sounds too good to be true, is it? Some local surgeons are concerned that cost is clouding candidates' judgment. A 2014 University of York paper said that many people embarking on medical tourism

don't fully understand the risks. "We found that many people are embarking on medical tourism with insufficient information and advice, with consequences ranging from troublesome to catastrophic," wrote Dr Neil Lunt. Dr Craig Rubinstein, a plastic surgeon at Cosmetic Surgery for Women, agrees that caution needs to be exercised. "The level of training of the surgeons is unlikely to be the same [in some countries] as in Australia. The standard of the facilities – we don't know the quality of the instruments that are used and the quality of any implants used," Dr Rubinstein says. "If you go overseas to have surgery, you could be seeing someone who has minimal or no training, minimal or no experience, who isn't accountable, who you have never seen before (except for over the phone or before the surgery) and probably will never see again. You will have

WRINKLE JABS ABROAD

Take the logic that non-invasive procedures like Botox jabs are safer than having your spare tyre punctured and flip it. The counterintuitive opposite is true. While the cost of muscle relaxants like Botox and dermal fillers such as Juvederm scrape in at a smidge of their local price – think \$320 for forehead Botox every three months and an annual hit of dissolvable filler at \$1,500 – the true cost of cut-price Bowie can be more than money can buy. Melbourne GP and cosmetic physician Dr Jonathan Brown (cityskin.com.au) describes one patient who decided to bookend his partner's boob job with permanent dermal filler to lift his cheekbones. When he returned with a lumpy face, he was told his only recourse was surgery to scrape the filler from beneath the skin and that scarring would likely be permanent.

» continued on pg.94

» continued from pg 93

to live with the consequences of this person's actions," Dr Rubinstein says. The concept of cosmetic tourism doesn't sit well with him. "I find it bizarre when people say they can also go and have a holiday at the same time as having surgery. This is one of the most important decisions of your life and to see it as a holiday – it's foolish."

Quality control

When it's good, it might be really good, but local experts report scary stories. "Sometimes an operation is performed which is different to what the patient was expecting," Dr Flynn says. Dr Rubenstein had a patient who ordered sub-pectoral breast implants (under the muscle) in Thailand and returned to find out via MRI that they had been placed above the muscle. "I've seen people come back with infections, we've had people come back with bad scarring or implants put in the wrong position. One implant company has told us the quality of the implants in Australia are not

the same as the ones used overseas," Dr Rubinstein says.

With overseas surgery, the onus for post-operative care is uncertain.

"No one is accountable or responsible," Dr Rubinstein says. Yet there are certain safeguards, says Riddle-Cross, whose agency has staff in Phuket. If there was an issue after a patient returned home, Riddle-Cross says the case would be reviewed under the hospital's guarantee. Comprehensive travel insurance is also essential for cosmetic travellers, she says. Buyer beware: getting travel insurance that covers planned surgical procedures is not easy. "Cosmetic Tourism has become an increasingly popular choice for many; however, it should be treated with caution," says 1Cover Travel Insurance director Eddie Feltham. "If you do opt to have cosmetic surgery abroad, I'd encourage you to consider the health risks, because your travel insurance will not provide you with medical coverage associated with the procedure."



CHECKLIST: Things to consider if you're having overseas surgery

So you've decided to go ahead with treatment overseas? Here is what you need to know before you book your plane ticket.

- » **Talk to your GP** generally about their opinion on the procedure and whether you are a suitable candidate. You may also want to discuss with them a suitable local surgeon willing to assist with after care or any other post-surgery complications.
- » If your local doctor is willing, ask them to **provide the overseas doctor with your medical records** in preparation for the operation.
- » **Research the accreditation credentials of your chosen hospital or surgery.** The Joint Commission International sets quality standards for hospitals that participate in its program of review.
- » **Find out the qualifications** of the doctor or any other staff who will be looking after you. Ask them the number of times they've done the

procedure and their error rate. You want someone that has had lots of experience with a low error rate.

- » Ask generally about the **success rate** of the procedure.
- » **Try and speak or meet with the surgeon** before the operation day to ensure you have the same expectations. It's also important that you feel comfortable around them.
- » Ask about the **quality and safety** of the technology used as well as sterilisation and resuscitation procedures, infection control and the quality of any implants used.
- » Ensure the hospital and doctors have **medical indemnity insurance**, and if you are using a medical tourism company, discuss their procedure for when things go wrong.

- » Be clear on **recovery time** and what aftercare will be required. Be diligent with all post-surgery care as it can be the difference to a successful treatment.
- » **Arrange suitable accommodation for recovery.** Some hospitals will offer facilities, but always check first.
- » If it's financially viable, **have a friend or family member accompany you** to assist with recovery. It's also helpful for dealing with the psychological and emotional process of surgery.
- » **Book the most direct flight home** after your procedure to prevent blood clots.
- » Once you arrive home, **keep in touch with your GP** and seek immediate help if worrying symptoms or complications develop.

TREATMENT COST COMPARISON AUSTRALIA V THAILAND

PROCEDURE	\$AUD PRICE IN AUSTRALIA	\$AUD PRICE IN THAILAND
Breast Implants	10,000 – 15,000	3,400
Breast Reduction/ Lift	10,000 – 15,000	4,000 – 4,500
Liposuction per area	4,500	1,500 – 2,000
Face Lift	20,000 – 35,000	5,000 – 9,000
Blepharoplasty – Eyelid lift, each, upper or lower	3,000 – 4,500	800
Tummy Tuck	15,000	3,500 – 4,500
Rhinoplasty	8,000 – 12,000	3,000 – 4,000
Thigh Lift	8,000 – 10,000	3,000 – 3,500
Arm Lift	8,000	2,500
DENTAL		
Crowns	1,500 – 2,500 each	300 – 600 each
Veneers	1,000 – 1,500 each	300 – 400 each
Teeth Whitening	500 – 1500	250 – 350
Implants	2,500 – 4,500	1,200 – 2,500
Fillings	100 – 200 each	30 – 40 each

*Chart supplied by Medi Makeovers



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BANGKOK BOTOX

Between Bangkok's trendy boutiques, roadside noodle stands and spiritual monuments, a new type of tourist to the city is all but invisible. They are reading magazines in air-conditioned clinics while they wait for their Botox appointments. Despite being non-invasive, injectable muscle inhibitors and dermal fillers are part of a medical tourism minefield according to Melbourne aesthetic nurse Mike Clague, who has trained more than 1,000 doctors and nurses in Thailand, India, Malaysia and the Philippines in injectables. First, it's hard to tell a grey market product for the real deal. "In Asia you will sometimes find parallel imports – products that are not approved by the local government but are shipped in by distributors from other countries, cheaply," Clague warns. "If you are having treatments in Australia you are pretty much guaranteed the products are deemed safe by the Therapeutic Goods Association." Then there's the skill and experience of the practitioner,

whom patients entrust with their faces. "Botox treatment isn't like a can of Coke. You can't buy the exact same treatment from two cosmetic injectors, because the placement of the product and the dose administered decides the outcome. It's an art and a science; you have to place the right amount of the muscle relaxant into the specific area you want to relax. Experienced injectors generally get better results as they know the product intimately," Clague says. The worst botch job he saw was a patient who approached him after returning from Thailand with one eyebrow lifted and the other one drooped. The patient had to endure a lopsided face for three to four months, until the injectable wore off.

Beate Juengst, managing director of International Medical Health Solutions, which coordinates medical and cosmetic services in Asia, says medical tourists should only get anti-wrinkle injectable treatments from a medical doctor, dermatologist or plastic surgeon.

BOOB JOB PHRASEBOOK

Words: Cassy Small

For centuries the female form, and breasts in particular, has been celebrated by artists, authors, filmmakers and fashion icons. "The female breast has played a major role in human history. The nubile breast grows to maturity to represent a female's coming of reproductive age. It is a source of comfort and sexual attraction as well as an essential food supply to the newborn. Breast-fed babies win in all aspects of development. It is the way of nature," says cosmetic physician Dr Ashley Granot from Melbourne's Me Clinic.

The psychological impacts on women who are unhappy with the appearance, size or shape of their breasts can be significant. "Humans are visual in their initial sexual attraction and the full, youthful breast is a magnet to the male of the species as is the female body curve and walk. To maintain or enhance their visual attractiveness women resort to many forms of breast rejuvenation or enhancement procedures such as breast implants or breast lifts," says Dr Granot. Official data on plastic and cosmetic surgery is not collected in Australia, but in 2012, the American Society for Aesthetic Plastic Surgery recorded more than 330,000 women who had received breast augmentation, making it the most popular cosmetic surgery in the United States.

Typical patients include young women who don't feel that their boobs are big enough (or, in rarer cases, are too big) and women who have had children and are having issues with sagging and reduction in volume, Dr Granot says.

But it's not as simple as it sounds. "Official protocol says implants should be examined and even possibly changed every 10 years," Dr Granot says – although most women can go 15 or 20 years with no issues.

The bigger the implant, the more probable complications become. "If you started as an A cup and want to move up to a double F, it would be quite tight on the chest and it is more likely you will have complications," he says.

The next big thing in boob jobs is the Ideal Implant, which combines the look and feel of a silicone implant without any silicone. Here, saline is stored in multiple chambers and allows the fluid to move more naturally, eliminating wrinkling and rippling often reported with traditional saline implants. ■



YOUR BEST
FUEL IT



Eat Pray Eat

Take your taste buds on a world tour and enjoy the healthiest eating practices and foods from all over the globe.

Words: Stephanie Osfield

Flashback to the '70s, and Chiko rolls, Spam, pickled onions and steak Diane were on high rotation. The closest to global cuisine most Australians got was eating at the local Chinese takeaway. Fast forward several decades and food from all over the world has completely 'made over' and improved our culinary landscape. But are you making the most of it? If you're only enjoying sushi or dukkah, you're missing out on the wonderful multicultural smorgasbord on offer. Different foods and eating approaches from many countries can pack a powerful health punch that may help you live longer and happier. Here's the lowdown on the healthiest cuisine picks and eating habits from all over the globe:

1. Spain, Greece, and Italy: Load your plate with vegetables



Adopt this habit:

- **Vary veggies and fruit:** Pile your plate with artichoke hearts, zucchini, carrots, eggplants, silverbeet, tomatoes, capsicum and salad greens and enjoy fruit platters with grapes, watermelon, mandarins and pomegranates. The high antioxidant levels in colourful fruit and veggies reduces disease-causing free radicals.
- **Opt for olive oil:** About 30 to 40 per cent of kilojoules on the Mediterranean diet come not from fat, but from healthy monounsaturated sources like olive oil, which contains phytosterols that benefit good cholesterol. Choose cold-



The robust flavours and filling nature of dishes like dolmades, paella, grilled octopus salad, ratatouille, stuffed peppers and bruschetta not only satisfy your taste buds, they also blitz hunger and boost health. But what most people don't realise is that vegetables are actually the staple of most meals of the Mediterranean diet.

"Foods like lasagne were special occasion dishes, but the traditional diet was largely vegetarian because people couldn't afford much meat," says Catherine Itsiopoulos, associate professor in dietetics and human nutrition at LaTrobe University in Melbourne and author of *The Mediterranean Diet*, a cookbook based on Greek recipes (Pan Macmillan, \$34.99). "Instead, they often ate casseroles, where in one serve you would get many different vegetables like peas, carrots and artichokes and zucchini. In the traditional Mediterranean diet, half a kilo of vegetables were eaten per person per day."

The benefits of this diet have been well studied. The results of the now famous Predimed (Prevención con Dieta Mediterránea) study, which tracked 7,500 people in Spain, found that after four years on the traditional Med diet, participants incurred a 50 per cent reduction in the development of type 2 diabetes and 30 per cent decrease in heart disease and stroke. Those who had been on the cusp of diabetes showed less signs of metabolic syndrome – in particular, a reduction in their waist circumference – without counting kilojoules or increasing exercise.

pressed extra-virgin olive oil, which is higher in antioxidants.

► **Reduce red meat:** "This reduction in saturated fat reduces kilojoules and benefits heart health," says Itsiopoulos.

► **Dish more fish:** "The omega-3 fatty acids in fish help protect against heart attack and stroke and improve brain health," Itsiopoulos explains. "They also lower inflammation levels, which is important in diabetes to help counter the impacts of problematic BGLs and other complications, ranging from kidney issues to changes in blood vessels."

► **Downscale dairy:** Butter, cream and milk don't feature highly in the Mediterranean diet. Instead, followers favour full-cream yoghurt with a dash of honey and a little Parmesan or goat's cheese added to meals for a flavour boost. Calcium is taken from food sources such as broccoli, almond, oily fish (such as sardines and salmon with bones) and chicken and lamb bones that have broken down through slow cooking in stews.

2. Japan: Shokuiku: Get savvy about your food choices

In 2005, the Japanese government established what they called 'The Law of Shokuiku'. It outlines food principles that encourage people to become healthy foodies, who educate themselves about good nutrition and make healthier decisions based on that know-how.

Adopt this habit:

► **Read up:** From emotional eating and the paleo diet to processed foods and healthy cooking techniques, Google different subjects to improve your knowledge about food and what a healthy diet looks like. To do this, look at websites put together by reputable organisations such as the Dietitians Association of Australia and Nutrition Australia.

► **Listen to your body:** If a low-carb diet makes you exhausted or going vegetarian is too rigid, try something else or adopt an eating style that incorporates elements of several healthy eating plans.

► **The Okinawa diet:** stop eating before you feel stuffed full. People from the Okinawa island in Japan remain lean all their lives and experience low rates of heart disease, dementia and cancers of the colon, breast, ovaries and prostate. Their food mantra? *Hara hachi bu*, which means, 'Eat until you are only 80 per cent

full'. "The Okinawa diet reminds us that it is eating patterns, not individual foods, that create a healthy diet," says Alan Barclay, dietitian, nutritionist, and chief scientific officer for the Glycemic Index Foundation. "Okinawans enjoy longevity even though, unlike the Mediterranean diet, their food is low in fat and high in carbohydrates."

► **Serve smaller portions:** Use a smaller plate so that you don't make your meal too big by piling a larger plate to the max.

► **Monitor fullness:** When you feel pleasantly full, stop eating regardless of what's left on your plate – this will leave you satisfied and reduce kilojoules.

► **Avoid second helpings:** Don't go back for more unless you're tucking into salad (minus creamy mayonnaise or super sweet dressing of course).

► **Fill up with water:** Drink a tall glass of water about 45 minutes before a meal.



3. Scandinavia: Eating plenty of fresh produce

The Nordic eating style, based on food that is seasonal, fresh, local and rustic, is enjoyed in countries like Norway, Sweden and Denmark and set to become the next 'it' diet. It encourages intake of more fresh fruit and vegies, eating whole grains like rye and enjoying more seafood (wild, not farmed). 'Clean' foods are priorities so you consume less additives and preservatives, and small amounts of red meat that are eaten are lean, good quality and preferably organic. As well as reducing your intake of processed foods, the Nordic diet also aims to create less environmental waste. "This focus on eating fresh reduces the time food is stored so it is not losing its health-boosting minerals, polyphenols and other nutrients," says Barclay. "Pickled foods are also enjoyed, which boost healthy bacteria in the body."

Adopt this habit:

► **Visit local food markets:** They often have fantastic fresh produce on offer.

► **Shop more often:** That way you won't be eating broccoli or carrots that have been sitting in your fridge long enough to go limp and lose nutrients.



4. Polish: Tuck into home cooking

"If healthy recipes are chosen, home cooking helps reduce intake of salt, sugar, unhealthy fats and excess kilojoules," says nutritionist Rosemary Stanton. "It is also better for your budget."

Adopt this habit:

► **Brown-bag your lunch:**

It only takes an extra 10 to 15 minutes in the morning, and your waistline will enjoy the benefits.

► **Limit takeaway:** This should only be eaten once a week. If you choose something like pizza, make sure you add a healthy side salad.

► **Cook double batches:** Then freeze the second for nights when you are exhausted or late home.

► **Bake from scratch:** That includes sauces and salad dressings too. Keep ingredients for quick-fix meals including omelettes, salads, pasta or doongara brown rice, which has a low glycemic index.



5. Bulgaria: Boost your belly bacteria

Bulgarian yoghurt is right up there with Greek yoghurt for taste and health benefits. It is packed with good bacteria that helps you digest and break down your food, absorb and utilise nutrients and lines your digestive system, providing a frontline of defence against dangerous bacteria that could cause illness or disease. Growing research is now linking unhealthy belly bacteria to weight gain, allergy, type 2 diabetes, heart disease, strokes and depression.

Adopt this habit:

► **Enjoy fermented foods every day:** Good choices include yoghurt, miso and kefir (a probiotic milk drink). Buy preservative-

free versions or learn how to ferment your own foods at home via a course or the Internet.

► **Savour some sourdough:** "If it is an authentic sourdough, the label will mention a starter culture," says Barclay. "That culture means that the bread contains healthy

LEARN HOW TO FERMENT YOUR OWN FOODS AT HOME VIA A COURSE OR THE INTERNET.



6. France: enjoy a little wine, cheese and dessert

"I don't support any 'diet' that doesn't permit some indulgence," says Stanton. "The French have been a great lesson to us in that they consume only small portions of foods." Yet despite eating cheese, pastry and wine on a regular basis, they have lower rates of death from conditions like heart disease. For example, when they enjoy a cheeseboard after a meal, they have around three crackers and sample a few small pieces of cheese. Experts believe this balanced approach explains the 'French paradox', where the French don't deprive themselves, yet enjoy better health than people in many other countries.

Adopt this habit:

► **Set a weekly kilojoule budget:**

Work out a figure, such as 2,000 kilojoules and enjoy deciding how you will 'spend' this budget on special foods such as

a glass of wine or a few squares of dark chocolate every night.

► **Enjoy a taste of treat foods:**

If you are given a full serve, leave half.

bacteria that benefits your body and also ensures the bread does not spike your blood glucose levels.

► **Mexico:** Eat your largest meal in the middle of the day. This one is a no brainer really – it ensures that you have more time to burn the kilojoules off your largest meal.

► **Cook for the next day:** Then

heat up your main meal and take it in a thermos container.

► **Eat your lunch for dinner:**

Have the sandwiches or salad you normally have for lunch as your light evening meal.

► **Mix it up:** If hot meals at work are too fiddly every day, eat your big meal in the middle of the day on weekends and then one other day during the week.





Garlic: Alternate using porcelain, purple and brown varieties for different flavours. The sulphides boast antibiotic properties and may help combat free-radical damage that leads to disease or inflammation.



Tahini: This nut-like paste boasts high amounts of zinc, a mineral that is critical for healing and for clear skin and good immunity.

Green Tea: The catecholamines in green tea also help to stimulate further fat burning if consumed soon after a workout shows research from the University of NSW.



Shiitake mushrooms: Add to stir-fries and wraps. Lentinan, found in mushrooms, has been shown by studies to help prevent mouth bacteria from creating plaque.



Quinoa: This whole grain contains all the amino acids, so it is a complete protein, which helps curb appetite. Use it in salads, soups or as an alternative to rice.

Health-Friendly Foreign Foods

Keep these foods from all over the world on high rotation in your diet and experience the health benefits enjoyed in countries all over the globe:



Rye bread: "Choose one that is stoneground, which ensures the starch molecules remain large," says dietitian Alan Barclay. "By contrast, many commercial or 'light' rye breads refine the flour to such a fine powder that although the bran is added back in, the underlying starch becomes highly refined, so it is quickly digested, causing a rapid rise in blood sugars and insulin."

Coffee: Whether you enjoy it Turkish style or as a long black, coffee has been shown by research to help protect against Parkinson's disease, type 2 diabetes, liver disease and liver cancer. Just remember that too much coffee can cause issues like shakiness, heart palpitations, anxiety, irritability and insomnia, so don't overdo it. And give the sugars and milk a miss.



Goji berries: This deep-red fruit is packed with antioxidants, which help fight disease.





Oats: "These are high in soluble fibre, which means they are broken down slowly by your body to supply a longer-lasting source of energy and also keep you full for longer," says nutritionist Rosemary Stanton. They also stimulate hormones that control your appetite so that your brain and belly exchange signals to let you know you've had enough.



Tomatoes: These contain lycopene, a powerful antioxidant that may help prevent cancer and lowers cholesterol, reducing risk of blocked arteries. The lycopene becomes even more concentrated as tomatoes are heated.



Olives: Are a skin-boosting snack – the more olive oil you eat, the less wrinkled your skin appears according to research from Monash University in Australia.



Potatoes: Used as a staple food in countries like Ireland, potatoes are, according to Stanton, "A useful filling food as long as they are not consumed solely as chips."

Curry spices: A brain superfood, curry is high in curcumin, a potent antioxidant spice shown by many studies to have a powerful protective effect against dementia.



Nuts: Consumed regularly in the Mediterranean diet, these are a filling source of protein, energy and healthy omega 3 fatty acids. Choose raw or roasted cashews, almonds, walnuts and macadamias, but forgo salted and sweetened varieties.



Yoghurt: Packed with good bacteria for your belly balance, yoghurt can help reduce issues like eczema and rhinitis.



Semolina: A good source of heme iron, which is easily absorbed by the body and helps energy levels.

Beans and pulses: "These are cheap, excellent sources of protein, minerals, vitamins, dietary fibre and various polyphenols," says Stanton. ■



Dark Chocolate (70%): The potent flavanoids help protect the health of blood vessel walls, enabling them to dilate easily. Chocolate also reduces blood pressure and bad cholesterol.




ARE YOUR HUNGER HORMONES OUTTA *control?*

And how to beat the
post-gym binge

More commonly associated with PMS and pesky lip than appetite, hormones play a huge role in how hungry you feel and even how well you can resist the second biscuit. If yours are off kilter, you can re-train them.

Words: Angela Tufvesson



While we're conditioned to think of hunger and weight as subject to factors within our control – like, erm, willpower – there's a world of intricate biophysics rendering control limited at best. One of the most common arbiters of hunger and, relatedly, body weight is the endocrine system or, as we know it, hormones. Think of the endocrine system as an email server. Hormones are the messages that tell parts of the body what to do – from releasing an egg to storing fat. As with any such system, they can occasionally fail to reach their destination (even if they left your outbox). In email terms, it can mean you miss a deadline or curse a friend for forgetting your birthday. In metabolic terms, however, lost messages can result in subtle adaptations that disrupt the entire system. If energy production is upended, energy usage and storage can be disturbed, and with it, eating and weight.

“Many factors can affect hormonal regulation in our body: inadequate sleep, shift work, chronic fatigue, emotional trauma, excessive alcohol and our diet and exercise habits,” says accredited practising dietitian Angela Buntic. “Hormone levels can affect weight.”

Numerous studies have looked at how hormones start and stop us eating. The two main culprits are leptin and ghrelin. The former is secreted by fatty tissue and helps regulate energy balance by sending a message to the brain to tell it you're up to pussy's bow, while the latter stimulates appetite.

As leptin is produced by fat, leptin levels tend to be higher in overweight people, but despite having higher than usual levels, paradoxically, they often aren't as sensitive to its effects and are less likely to feel full during and after a meal. Chronic dieters are also in the firing line for leptin disturbance (the irony), which may in part explain why rebound weight gain is the rule, not the exception.

If you feel as though you've got hollow legs or feel your portions – and perhaps cigarette-leg pants – are blowing out, resist the blame game and give your hormones the once-over.

GHRELIN AND LEPTIN

KEY ROLE: Ghrelin and leptin are business partners that together regulate appetite. Leptin's what's sending a signal to the brain just before you get that 'full' feeling halfway through a plate of spag bol. Conversely, ghrelin, a shorter-acting hormone secreted by the gut, lets you know you're hungry.

CARE FACTOR: Research suggests that lack of sleep quickly translates to two conditions favouring overeating: one, you don't get the full signals when you eat thanks to a dip in leptin. Two: you feel extra hungry thanks to a rise in ghrelin. A study published in the journal *Sleep Medicine* found that when participants slept for just four hours a night for two nights, leptin levels dropped by 18 per cent and ghrelin levels increased by 28 per cent. In snacking and seconds terms, they're big numbers.

SOLUTION: Get enough kip. Keeping ghrelin and leptin levels healthy can be as simple as going to bed an hour earlier, keeping the laptop out of your bedroom and resisting all-nighters.

CORTISOL

WHAT IT DOES: When you're in danger or on high alert – before a big meeting or presentation – the body releases stress hormone cortisol into the bloodstream. It feeds your brain extra oxygen and releases energy from your fat and glucose stores to help you avert the threat or make a good impression on that date.

CARE FACTOR: Frequent, chronic stress means more cortisol is released into the bloodstream than the body can use. This puts you at increased risk of heart disease, sleep disturbances, depression and obesity.

“If cortisol is elevated for long periods of time, it can promote weight gain,” says Buntic. “Stress hormones trigger the fight or flight response, making the body's fuel sources, such as glucose, ready and available for use. However, if you don't actually use this energy for a physical response, the body stores the released energy as fat, usually around the abdomen, ready for the next threat.”

SOLUTION: Find ways to manage stress, says Sally Symonds, author of *50 Steps to Lose 50 kg*. In conjunction with healthy de-stress methods such as yoga, meditation and aerobic exercise and doing things you enjoy (spending time with friends is not a luxury), minimise processed foods, which can contain additives that stress and inflame the system – think artificial sweeteners and sugar.

OESTROGEN

KEY ROLE: The constant push-pull of oestrogen and progesterone production keeps the reproductive system balanced and as such, functional. Oestrogen is integral to the menstrual cycle (high levels induce PMS) and pregnancy. It also helps maintain strong bones.

CARE FACTOR: Fluctuations in oestrogen across the lifespan may help explain women's higher prevalence of obesity compared to men according to a study published in the *Journal of Women's Health*.

“Oestrogen is the culprit for many of our problems, from breast cancer to endometriosis, PMS and cancer of the uterus,” says GP Dr Maura McGill. “Progesterone can ameliorate the effects of oestrogen gone wild, but if we are chronically short of one hormone, we need to reintroduce the missing hormone in the most natural way possible.”

SOLUTION: Avert oestrogen-induced weight gain by basing your diet on whole foods and limiting processed food intake. Also avoid high-oestrogen foods such as soy products and chicken at PMS time, Dr McGill advises.

MELATONIN

KEY ROLE: The hormone of darkness, melatonin maintains the body's circadian rhythm. The circadian rhythm is an internal 24-hour clock that regulates when we fall asleep and wake up. The body produces melatonin when it is dark to encourage rest.

CARE FACTOR: Winter is the nemesis of healthy melatonin, as insufficient light during the day can disrupt the hormone responsible for waking us up and settling us down at either end of the day. Disrupted melatonin levels can result in weight gain, which is why it's possible to gain weight in winter – even without the bread and butter pudding.

SOLUTION: Regulating melatonin levels can help control weight gain, even without reducing calorie intake. According to researchers from the University of Granada in Spain, melatonin might help prevent heart disease associated with obesity, increase HDL (good) cholesterol and reduce LDL (bad) cholesterol. Small amounts of melatonin can be found in goji berries, almonds, sunflower seeds, cardamom, fennel, coriander and cherries. For natural melatonin, sleep in a pitch-dark room.

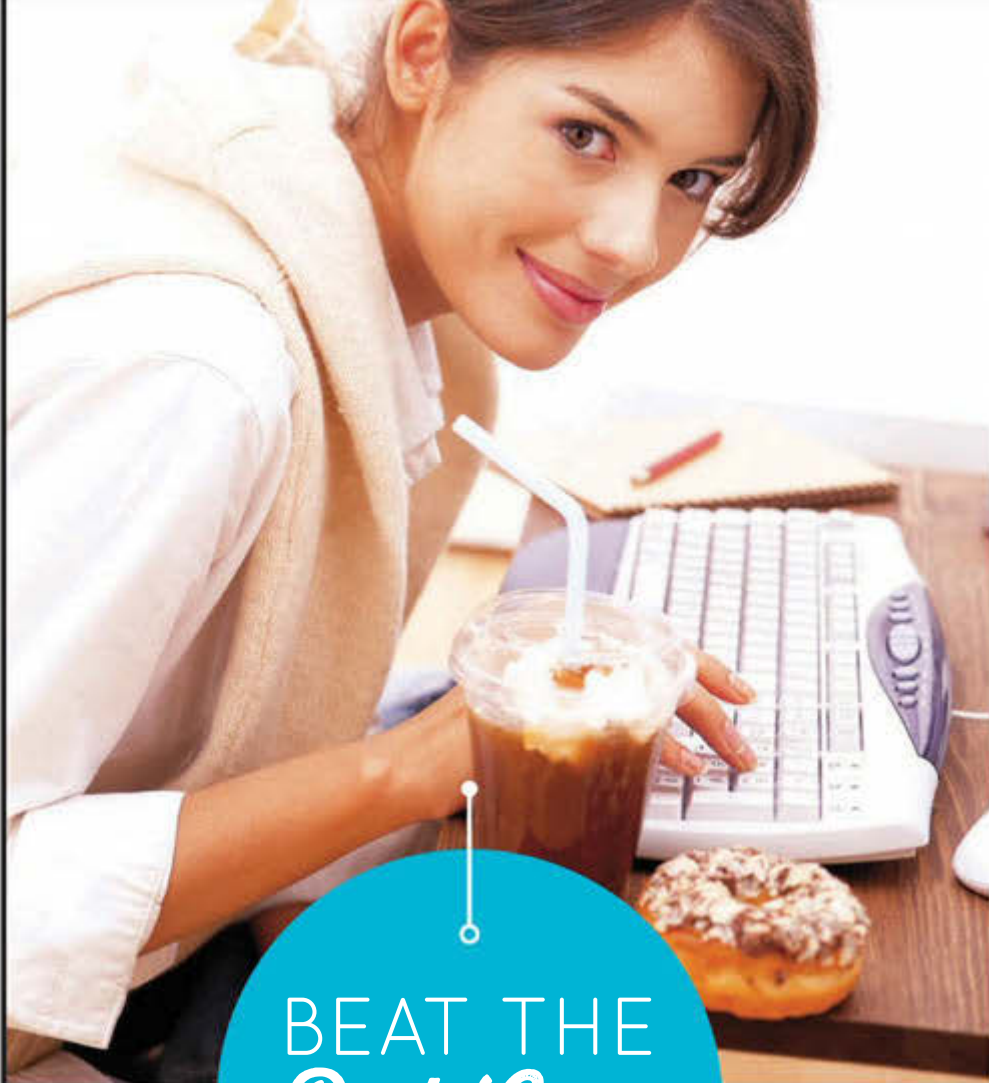
INSULIN

KEY ROLE: Insulin is secreted by the pancreas in response to carbohydrate consumption and transports glucose – the simple sugar left when carbs are digested – into muscles for conversion to glycogen to be further converted to produce energy such as ATP.

CARE FACTOR: If your weight resists reduction attempts despite increased activity and decreased intake, you may have a metabolic condition called insulin resistance, says Buntic. "In insulin resistance, the muscle cells build up a resistance to insulin, so the body produces more and more in an attempt to maintain the transport of glucose to the cells for energy.

"As insulin works to prevent fat being burnt to preserve muscle and fat mass, high levels of insulin can result in a situation where fat is stored rather than burnt, leading to difficulty in losing and maintaining weight." Without interception, insulin resistance is likely to turn into type 2 diabetes.

SOLUTION: Insulin resistance can be managed with a low-GI eating plan and exercise including cardio and resistance training.



BEAT THE *Post-Gym Binge*

If you've ever embarked on a fitness blitz only to find you gained weight, you've encountered a cruel but common paradox of human movement.

While some weight gain is good (adding metabolism-boosting muscle) and other neutral (the illusory weight gain caused by water retention as unconditioned muscles wrap their heads around the trauma and swell the site), there's a third type of weight gain gym intake officers generally keep under wraps while spruiking direct debit. Body fat gain is a real risk for those who introduce or increase exercise frequency or intensity.

In fact, workouts make a smaller dent in energy intake than limited-time gym offers suggest. The greatest proportion of energy ingested – 75 to 85 per cent – is used by basic bodily functions like breathing. Digestion itself, technically known as the thermic effect of food, takes 10 per cent of total energy expenditure

(TEE). Even incidental activity, like running for the train, nudges in before formal exercise.

The fat burn illusion

Unfortunately the treadmill's estimate of what you burned during that run is likely to exaggerate the biological facts. A Pennington Biomedical paper investigating why people who exercised regularly failed to lose weight suggested that energy expenditure during exercise is less than energy output recorded in calorimetry tests based on oxygen expulsion. In other words, it may take a greater energy deficit to burn a kilo of fat than the 7,000 calorie surplus it takes to gain it (cruel, much?).

Charts and calculators are also culpable. Charts that give calorie burn against activity and intensity (say, cycling at 20 km/h or jogging) are based on a median body – not yours. Often this body is male and considerably bigger, meaning

everything from breathing to sprinting demands more energy than your body under the same conditions. Even if you adjust for your gender and weight, energy expenditure calculated by gym machines or online calculators ignores all manner of variables including body composition. A 165cm female weighing 60 kg with 14 per cent body fat will use more energy than a 165cm female weighing 60 kg with 25 per cent body fat. Activity duration and the type of fuel your body preferentially uses – which depends in part on the macronutrients you've ingested and timing in relation to working out – also impact how much energy your grunt work burns. The untrained are likely to use more carbs for fuel, in proportion to fat. In a 2009 rat study published in the *American Journal of Physiology – Regulatory, Integrative and Comparative Physiology*, academics found that exercise appeared to change the way the body burns food – switching its go-to fuel from carbohydrate to fat. "Burning fat first and storing carbohydrates for use later in the day slows weight regain and may minimise overeating by signalling a feeling of fullness to the brain," authors wrote.

False economy

One key suspect in the

confounding equation of gym equals fat gain is that working out makes you eat more. There is such a thing as exercise-induced hunger. It makes sense since the appetite regulatory system is calibrated to compensate for minor shortfalls and excesses to maintain homeostasis. (Our ancestors didn't have MyFitnessPal to ensure that Tuesday's intake was the same as Monday's.) According to a 2010 paper published in the *Journal of Clinical Endocrinology and Metabolism*, this means that while the body will fight against weight gain, it will also fight against weight loss – no matter how badly you want those spin classes to get you back into last year's skinny jeans. "Metabolic and behavioural compensatory responses, targeting both sides of the energy balance equation, are likely to influence the magnitude of weight loss in response to exercise," researchers wrote. It works by covertly encouraging you, dear gym-goer, to eat more to cancel the caloric deficit. According to research, it works. In a Griffith University study, runners consumed an average of five per cent more energy in the 14 hours following exercise. There's a second way your body fights against fat loss – by curbing incidental activity (if you think you sit more on workout days, you might be right). A

study reported to the American College of Sports Medicine found that people tended to move less overall on workout days than rest days – to the tune of a game-changing 31 per cent. That drops a typical desk worker's incidental movement tally from 345 calories to 238 calories.

Loopholes

Now for the good bit. While personal eating style plays a part (hedonic eaters or those who eat emotionally or for pleasure are more likely to eat more after gym than functional eaters), the degree of post-exercise hunger also depends on exercise type according to research in the *Journal of Endocrinology and Metabolism*. A Japanese study suggests that skipping downplays hunger more than other forms of exercise, possibly due to the "gut disturbance" and effect on hunger hormones like ghrelin. The theory is mirrored in running as opposed to cycling. Vertical exercise may have a greater appetite-suppressing impact than horizontal motion, researchers guessed. After 25

minutes of skipping or cycling, men with ropes reported feeling less hungry than those on bikes. Desire to eat fatty foods was also depressed in skippers. The right types of exercise may even dampen appetite on workout days. In a 2012 study, University of Wyoming researchers found that women who experienced spikes in hunger hormone ghrelin after running ate back only a fraction of the calories they'd burned. Walkers scaled down their intake, effectively reaping a good double-whammy of extra calories burned through exercise and fewer calories consumed. Some exercise can also help our bodies to gauge how much energy it needs, reducing the chance of overeating, said Norwegian

“
To prevent
weight gain
while fuelling your body for
optimal performance and
recovery, focus on consuming
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PROTEIN**
straight after exercise to
**MAXIMISE MUSCLE
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University of Science and Technology researchers. Barry Braun, associate professor of kinesiology at the University of Massachusetts, eschews the notion of out-training a bad diet, for training in a way that makes it easier to follow a good one. "Low-intensity ambulation" (code for slow walking), he said, could be a better bet than high-intensity exercise. Rachel Christine Colley, from The Queensland University of Technology, agrees. For exercise to be an effective part of a weight loss plan, the critical point is finding which type of exercise at which intensity gives the most calorie burn for your buck without activating compensatory eating and inactivity, which means paying attention to how your body responds, logging activity type and intensity against response (e.g. hunger and when it occurred along with what you did about it) and finding a sweet spot. It also applies to poring over fitness blogs. In a 2011 study published in journal *Appetite*, subjects who read about exercising took at least 50 per cent more of junk food snacks than those who hadn't thought about exercise, said study co-author

and author of *Mindless Eating* Brian Wansink.

Overeating insurance

After a hard workout, you need to replace the fuel you have used – but it's easy to overestimate how much you did burn. A piece of banana bread can cancel out an hour workout and then some (cue mysterious fat gain). To prevent weight gain while fuelling your body for optimal performance and recovery, focus on consuming 20 grams of protein straight after exercise to maximise muscle repair and promote an anabolic hormonal environment, says Anita Bean, author of *Food For Fitness*. You want high-quality proteins in the form of a protein powder made without fillers or, if you're prepared, a wholefood source like chicken breast. If you've done endurance work, adding high-GI foods – think fruit yoghurt instead of plain – will help restore muscle glycogen stores faster, particularly when combined with protein in a ratio of approximately three to one. Remember that the body can only use about 20 g of protein at a time, so spread the rest of your protein intake over the day. The recommended daily amount of protein is 0.75 g per kilo but this increases to cover repair of damaged muscle cells after intense exercise. And don't forget that the kJs in your recovery snack count towards your daily total! ■

HUNGER *speed date*

Think you know how hungry feels? Not so fast. While most of us take a rumbling tummy and inability to focus until we stuff our faces for granted, there is a difference between survival-based hunger and the more discretionary appetite.

According to nutrition specialist Dr Libby Weaver, "Hunger is the physical sensation that you need to eat – the rumbling in your stomach – while appetite is the

desire to eat. Hunger occurs with low levels of glucose in your blood several hours after

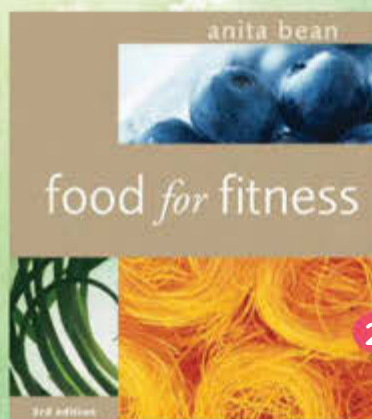
- » **Eating.** It is a protective mechanism that ensures your body is adequately
- » **Fuelled.** Appetite is the conditioned response to food – it is a sensory reaction to the look or smell of food. It is appetite that can lead your eyes to be bigger than your stomach."

THIS MONTH'S Essential Reading

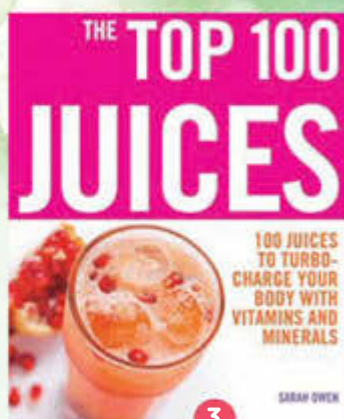
Check out our selection of
good reads for the month



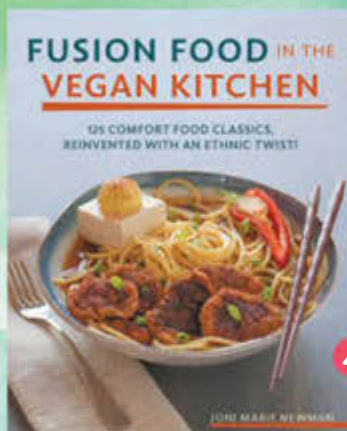
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1. THERMOCHEF NATURA

RRP \$21.99

Need a cooking gadget that can multitask? Get 'thermo-struck' (that is, get a Thermo Chef Natura) and then get this easy-to-follow cookbook. This kitchen appliance can weigh, whip, mince or beat foods (as well as cooking them!), making it an all-in-one compact cooking station. ThermoChef pro Kim McCosker has developed recipes for all meals, including creamy porridge and risottos, breads, desserts and complete meals. Then there are doughs, sauces, sides. ThermoChef aficionados: this is your go-to recipe book. Cook healthy, cook well, and enjoy the simplicity!

2. FOOD FOR FITNESS

RRP \$39.95

So you're serious about hitting the gym, but how serious are you about hitting the kitchen? *Food for Fitness* is the bible for those who want to get fit from the inside out. Get top tips from leading sportspeople and athletes, feast your eyes on some healthy food porn and, of course, cook your healthy heart out. The book unpacks issues that range from eating for competition and exploring 'superfoods' to meal plans and recipes.

3. THE TOP 100 JUICES

RRP: \$15.95

For those of you who are about to juice, we salute you. Fresh fruit and vegetable juices are packed full of vitamins, minerals, and loads of beneficial phytonutrients that help the body heal itself and prevent or lessen the severity of many common illnesses. Get the most out of them with *The Top 100 Juices*. This book covers everything from the everyday juicing to experimenting with exotic fruits from around the world. Get clued up with nutritional information and lots of suggestions for squeezing and blending healthful juices at home, along with pro-tips for preparation that ensures the juices deliver the most benefits they can.

4. FUSION FOOD IN THE VEGAN KITCHEN

RRP \$25.95

Find your inner vegan masterchef. This fusion food cookbook focuses fresh ingredients and making the most of delicious flavours found in different world cuisines. Author Joni Marie Newman has created more than 100 vegan recipes all featuring wholefood ingredients, which means no store-bought faux meats or not-quite-natural vegan mayonnaises and cheeses. Try your hand at Korean barbecue burritos, miso mac 'n' cheese or Mexican hot chocolate cake. Recipes also feature low-fat, soy-free and gluten-free options for those with special dietary needs. ■

Available from womenshealthandfitness.com.au

DIET BREAK

Can you afford to take a holiday from your hard-line food regimen, and how much caution can you throw to the wind? There's more wiggle room than you might think.

Words: Stephanie Osfield

True or false. You spend the fortnight before a holiday or birthday weekend eating nothing but lettuce to clear caloric room for lavish banquets? This kind of pre-compensation is as common as Aussie tourists in Bali. Research commissioned by travel site *lastminute.com.au* found that almost two thirds of Australian women step up their eating and exercise discipline before leaving home to pre-compensate for holiday-style eating and lounging.

Here's problem one. The body's smart – and geared to survival – which means the diet you think is creating a margin for holiday (or even birthday-weekend) blowouts in fact makes an all-you-can-eat buffet more compelling. Pro-survival physiological adaptations can kick in in a matter of hours of a caloric deficit, clocking up a kind of food debt for every hour your body spends in negative energy balance. The care factor is that it becomes a self-fulfilling prophecy – in the same way as skipping brekkie to insure against blowing your daily kJ quota (studies show strong correlation between eating brekkie and curbing quantities of food eaten not only at the subsequent meal, but over the day, including after-tea couch time).

The same peril applies to trying to get the jump on healthy holidays such as detox and weight loss retreats, which often advise a pre-trip detox to negate detox shock.

A study involving Melbourne University and Austin Health backs what a growing body of evidence has suggested for some years – that dieting can cause an upswing in hunger hormones (see p.104). “Our research has provided clues as to why people who have lost weight often relapse,” said one of the study's authors, Joseph Proietto. “The relapse to eating more has a strong physiological basis and is not simply the result of the people returning to old eating habits,” Proietto said. Dieting plus buffet equals binge – and not for lack of willpower. A brain imaging study at Oregon Research Institute showed that the reward centres in the brains of people who had been on a restricted kilojoule diet responded more strongly to the suggestion of high-sugar snack foods such as chocolate milkshakes than did the brains of those who had experienced energy balance.

Rather than impose logic on your pre-trip lunchbox, resist temptation to pre-compensate and instead apply these nifty tricks to turn your vay-cay's culinary hurdles into advantages.

THE VAY-CAY: The vego detox retreat THE OPPORTUNITY: Experiment with protein

It's a common lament among fitness enthusiasts forced into vego territory: but what about protein? Yet a few days eating veg needn't lead to muscle loss or impeded muscle repair.

Coined in 2003 to describe hardline vegetarians who consumed the occasional meat dish, flexitarianism has come to connote an eating approach similar to intermittent fasting, only less punishing.

Rather than radically reducing calories for two whole days a week to enable you to eat 'normally' on five days without gaining weight – that's the 5:2 way – this involves going vego, not starvo, part time. Rather than counting calories, the brief is to load up on nutrient-dense foods that are naturally low in kJs (it's exceptionally hard to overeat kale) and replenish essential nutrients and reset hunger and cravings induced by deficiencies. Spurred by the Meatless Monday campaign spruiked by celebrities including Gwyneth Paltrow, Stella McCartney, Kate Moss and Kevin Spacey, flexos eschew the obsessive micro focus on fat and calories in discrete meals for an, er, macro view appraising a week's nutrition as a whole.

Australian dietitian and flexitarianism proponent Rosemary Stanton says that studies of Australian vegetarians have found that although their protein intakes may be significantly lower than meat eaters', their intakes still easily meet recommended dietary intakes (RDIs). “Most plant foods contain some protein,” Stanton observes. The best sources include legumes, soy foods (including soy milk, tofu

and tempeh), nuts and seeds and grains.

WH&F dietitian on call Melanie McGrice says the concern about inadequate protein intake is valid – especially on a detox or weight loss diet. “When people cut kilojoules, they often eat less protein,” says McGrice. “This can be problematic. Protein helps to build and sustain muscle. Protein also requires more energy to digest so it increases thermogenesis – a process where your body boosts temperature after eating and, in turn, your metabolism increases,” she says. “When people diet, they often go for a radical reduction in kilojoules and fast weight loss, but this means that often what they are losing is muscle and not fat, which means you will also be burning less kilojoules because muscle is highly metabolic tissue that burns energy to function and undergo repair.”

Even if protein intake slips slightly, hunger can also be solved with strategic vego dining.

“A vegetarian diet is lower in fat and higher in fibre, and this combination helps people feel more full, so it is beneficial for weight loss and maintaining a healthy weight,” says McGrice. “Your weight will benefit from the lower kilojoule intake on the days you eat a plant-based diet and, over the course of the week, that may balance your overall kilojoule intake enough to help prevent you from gaining weight over a year.”

Research involving George Washington University in the US has found that a vegan diet can help people whittle away excess kilos without any need for counting kilojoules, weighing

portion sizes, cutting back on carbs or even doing regular exercise. Best of all, the kilos you drop are likely to stay off. In one study at the University of South California, people were asked to follow different diets. Those on the vegetarian or vegan plan lost more weight and at six months, when they were only sticking to the diet about 40 per cent of the time, they were continuing to maintain the weight loss and lose more when the meat eaters were not. Without even intending to, they had gone flexitarian.

The fibre, which is a prebiotic, also promotes a flatter tummy. In a Harvard University study, participants showed an increased population of potentially problematic gut bacteria within two days of eating an animal-based diet of meat and dairy foods. Conversely, their belly bacteria rapidly improved with a vegetarian diet.

MAKE IT WORK

Non-meat protein picks

- ✓ At a vego buffet, **add more tofu, beans and nuts** into meals like stir-fries, salads and soups for extra protein
- ✓ **Look for modified versions** of your favourite meals. In the era of mainstream meat-freeism, resorts and retreats are responding with vego takes on meaty faves – think sushi hand rolls made with water chestnuts, lasagne made with chopped mushrooms and eggplant strips in lieu of antipasto meats
- ✓ Assuming you're not vegan, **seek out vego options with animal products** – quiches and frittatas loaded with vegies are well balanced with ample protein and fibre for fullness and muscle retention. Lentil burgers are good too.
- ✓ Seek out options seasoned with spices; flavourful food will provide interest and stop you thinking about the meat you're missing. **Try cuisines from different cultures** – Greek, Indian, Turkish, Moroccan...



Intuitive eating is based on the belief that we are born with a near-perfect built-in food regulation system. "It's about knowing when you're hungry and full, what taste preferences you have and how your body feels after making food choices," says nutrition therapist Elyse Resch, co-author of *Intuitive Eating*.

Theory goes that the reason so many of us battle cravings and chaotic relations with the stuff of life is not weak will but that we've become distracted from innate wisdom. Work stress, TV-side habits and engineered hyper-palatability are all suspects.

Intuitive eating simply relies on feeling hungry and responding appropriately, says accredited practising dietitian Lisa Renn, spokesperson for the Dietitians Association of Australia and owner of Body Warfare. "You're removing every other reason that you're eating – you don't eat as a coping mechanism, you don't eat because you're bored, you don't eat because you're too busy. These are things that undermine intuitive eating."

While it might sound like a recipe for dairy milk disaster, a nifty quirk of biology means reality works in reverse (it's a bit like the boss telling everyone to take a long lunch break and dance at their desks whenever the heck they feel like it... if the permission doesn't make it distinctly uninteresting, the inevitable erosion of novelty after a few days will).

"If you have a piece of paper that tells you what to eat, that takes

the responsibility away from you so you're more inclined to eat everything on the piece of paper whether you want it or not," says psychologist Dr Naomi Crafti.

Dr Rick Kausman, author of *If Not Dieting, Then What?*, says that intuitive eating starts with trust. "People are able to trust their body more and become more in control from within, and therefore less likely to eat more than what their body feels like," says Dr Kausman.

Experts agree that dieting overrides intuition and is much more likely to result in out-of-control eating.

"Structured plans are completely counter to and invasive of the very private place within each human that houses the information responding to the what, when and how much to eat," Dr Crafti says. "Diets engender deprivation, with its accompanying deprivation backlash and rebellion against being told what to do, which triggers the need to assert autonomy by going against the diet."

Flexibility (and the courage to go freestyle) is key. "If you understand that your body's needs vary from day to day – some days you eat more, some days less – that gives you the freedom to really listen to your body and stop eating when you've had enough.

"We're all born with the skill, babies certainly don't read diet books and toddlers and young children are very good at knowing when they're hungry and when they've had enough, but often we lose it over time."

THE VAY-CAY:
All-inclusive Resort package
with unlimited buffet

THE OPPORTUNITY:
Boost metabolism

If you watch your weight like a hawk and keep a close watch on your daily kJs (6,348 is not approximate), the thought of a pre-paid food fest probably turns your stomach. Yet for restrained eaters, a free-eating vay-cay could, counterintuitively, increase metabolism, reducing the chance of future weight gain.

"We've known for quite some time now that when

people dramatically reduce the number of kilojoules they eat, their basal energy – the energy just to fuel basic body functioning – reduces," says Professor Timothy Gill, a principal research fellow at Sydney University's Boden Institute of Obesity, Nutrition, Exercise and Eating Disorders. "One of the first non-essential processes it shuts down is the production of body heat. This is one of the reasons why people often complain of feeling the cold more keenly on a kilojoule-restricted diet. It is an indicator that you are burning less energy. This is often called the

'starvation response' because as you eat less food, your body stops using as many kilojoules. It becomes more 'efficient', because it shuts down any processes that are not essential to life."

That's why restrictive eaters often reach a plateau after initial weight loss. "Because your body has adapted to lower kilojoules by cutting some functions, when you return to eating more kilojoules, you are at greater risk of gaining weight because your body remains in that slower energy-burning mode, sometimes for lengthy periods of time," Gill explains.

Enter reverse dieting, which basically flips the restriction method on its unhinged head.

The key to avoiding weight gain when increasing food intake is increasing gradually. "Gauge how your body is responding to the change and increase your kilojoules every week by 500 or more until you are back up at a higher kilojoule intake," advises McGrice. Think an extra piece of toast at brekkie, bacon with your

eggs or even a glass of vino with dinner. "Whether you increase your intake to around 7,000 or 8,000 kilojoules or a little higher, to around 8,700 (considered the average intake needed by most adults), will depend on factors like how sedentary you are, and if you exercise, what the intensity and duration of your fitness regime is," she adds. Whatever increment you choose, don't take it as licence to gorge on dessert. Favour nutrient-dense whole foods including whole grains and vegies.

Regardless of how you slowly increase your kilojoules back to a sustainable level, integrate exercise at each step. "Exercise is critical because it helps you restore muscle tissue, which helps you burn more fat. Because you are moving more, you are also burning more kilojoules," Gill says. "This double-whammy effect of exercise can help you while you slowly increase your food intake after a low-kilojoule eating plan so that you don't then regain all the weight." ■

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SUGAR SIDE SHOW

Medicalised within the realm of diabetes, erratic blood sugar can be blamed for many everyday mysteries from mood swings between meals (a.k.a. hangry) to shaking hands and inscrutable cravings. The good news is, it can be remedied with food.

Words: David Goding

So your weight has found its homeostatic point, you balance the odd sticky date pudding with truckloads of kale and have no reason to think of diabetes. You might reckon that blood sugar is the last thing you need to worry about.

Yet erratic blood sugar is being implicated in many conditions more often linked to insufficient food intake, PMS and caffeine overdose. Fans of simple carbohydrates are most at risk of what some in the medical industry have termed postprandial hypoglycaemia – coined to describe a dramatic drop in blood sugar after eating.

It sounds serious, but there's a fair chance you've experienced it without even knowing, blaming its fallouts on too much coffee, that time of month or insufficient sleep. All it really means is that rather than easing from one meal to the next, experiencing a gradual hunger onset, blood sugar can plunge like a Luna Park rollercoaster, inviting symptoms including headache, dizziness, sleep disturbance, heart palpitations, nervousness, nausea and irritability within four hours of scoffing a carb-rich meal.

The cause is often disappointingly undramatic, yet distressing and disruptive. "You've just had too much carbohydrate at one meal, which means your pancreas releases the equivalent amount of insulin to take those sugars out," says dietitian Kate Di Prima, from the Dietitians Association of Australia (DAA). The pancreas is responsible for regulating blood

sugar by releasing hormone insulin, which sweeps sugar from the blood and into the liver and muscles, where it's stored as glycogen.

To précis the science, your body drops your blood sugar as far as it rises and simple carbs or carbs with a high glycaemic index (GI) make it rise further and faster than complex and low-GI carbs or macronutrients protein and fat.

"So you're getting a reactive or rebound hypoglycaemic response after your body has taken the sugars out of your blood and your blood sugars experience a trough," Di Prima says.

If the pancreas releases too much insulin, the sugar is cleared so quickly from your blood that you're left hangry, whether or not you need the kilojoules. The desperate plea of biology increases the allure of more simple carbs, which perpetuate the cycle.

"The first thing people then crave is something sweet," says Di Prima. "They'll have a sugary drink or a coffee with lots of sugar or a biscuit or lollies. This gives you a high GI shot of sugar into your bloodstream, but what goes up quickly comes down.

"It becomes a rollercoaster ride of 'I need something and I'll have these highly refined, high-GI foods that give me instant satisfaction', but then as my body goes to work again it takes the sugars out, so you go back down again."

As a double-whammy, insulin also encourages storage of excess energy as fat.

PERSONAL CARBS

There's no hard, fast rule for avoiding reactive hypoglycaemia.

"When it comes to blood sugar, everybody is different," says Di Prima.

Being taller and leaner is likely to expedite blood sugar depletion while being shorter with higher body fat generally correlates with slower blood sugar decline.

"Also, people respond differently to a drop in blood sugar as well. Some people come to me and say they get a bit shaky, a bit tingly in the lips, or sweaty. Others don't have those symptoms at all. So you need to be careful diagnosing on symptoms alone."

Hard mental yakka also saps blood sugar more swiftly than, say, trawling Facebook.

"Your brain uses about a third of the glucose we consume," says Dr Alan Barclay, head of research at the Australian Diabetes Council and chief scientific officer at the Glycemic Index Foundation. "So if you're doing a mentally demanding task – something that involves a lot of mental processing – your glucose requirements go up."

Di Prima says long breaks between eating are counterproductive. "If you're going long breaks without eating – say, having breakfast at seven and then not finding time for lunch until two in the afternoon, which people do – you could have a hypoglycaemic response. But that doesn't mean you're hypoglycaemic, which requires a specific diagnosis," Di Prima says.

Caveat dieter: "If you haven't eaten enough for your metabolic rate or your energy output for the day, you'll definitely find that you'll have these low bouts of blood sugar," says Di Prima.

BALANCING ACT

Assuming you haven't got pre-diabetes or a thyroid disorder, the recipe for resetting your blood sugar system is straightforward according to Dr Barclay.

"Some people are eating 100 grams of pasta or rice in a big bowl – that's an awful lot of carbohydrate," says Dr Barclay. "Instead, aim to stick to about 45 to 50 grams of carbs in main meals." That's about three to four slices of bread or about one-and-a-half cups of cooked rice or pasta. "That's all a typical adult needs." The higher your physical activity level, the more you need.

"Aim for equal portions of carbohydrates and protein," says Di Prima. "Have smaller amounts of pasta and add a meat sauce or strips of chicken or even stir through an egg or feta cheese."

Regular intake – think six meals instead of three – can also aid stability.

"You need to get a structured menu plan and make sure you're eating three-hourly, always have a low-GI breakfast and lunch and have healthy snacks in between if you are going too many hours between meals," says Di Prima.

Blood Glucose Wish List

Low GI is the new low fat, with food manufacturers using the claim to sell everything from cereals to ready meals. Yet while individual foods sport glycaemic index credentials, it's the overall composition of a meal that matters – white bread with vegemite has a far higher glycaemic index than white bread with beans or other high-fibre accomplice. Oats with psyllium or other fibre toppers can change GI depending on the ratio of carb to fibre, fat and protein (milk can change the balance again). The other tricky aspect of manipulating blood sugar is food labelling. Under Food Standards Australia New Zealand's (FSANZ) labelling criteria, any product with a glycaemic index of 55 or less on a 100-point scale can be labelled 'low GI'. By all means take note of GI, but to optimise the index, aim to include all macronutrients in each meal.

THE SCALE
(1-100)



LOW

50 or less

Slowly raises blood sugar and keeps it stable

HIGH

60 or more
Causes a rapid spike. Prepare for the subsequent crash

Fregies

Fruits and vegetables span the GI spectrum depending on their starch and sugar quotient. The fibre in many fruits helps to slow glucose absorption, reducing the GI.

LOW (15): Broccoli, spinach, lettuce (all).

LOW-MEDIUM (35-50): Carrots (35); apples, grapefruit, pears and oranges (40); peaches, dates and prunes (<50); peas, parsnips and yams (50).

Grains

Not all grains are good when it comes to GI. You want whole grains, not processed grains (beware the tricky marketing hype).

LOW (<40): Pearled barley, converted rice and whole-wheat kernels.

LOW-MEDIUM (42-55): Wheat pasta (42); wholegrain bread (51); bran cereal and rolled oats (55).

Dairy

Reduced-fat and fat-free options generally have a lower GI than full-fat cousins, but beware the low-fat trap. It's not uncommon for manufacturers to make up for the mouth feel and flavour of fat with sugar or questionable artificial sweetening agents (see what we mean about the big picture?).

LOW (32-33): Skim milk (32);

reduced-fat yoghurt with fruit (33).

LOW-MEDIUM (41): Full-cream milk.

Note: Cheeses, except those crammed with glace fruit, are almost carb-free and not included in the scale.

Juices

Juice gets its bad rep from the removal of fibre, which means the sugar component (fructose) hits your bloodstream in one fell hit. But some juices are surprisingly low on the GI scale.

LOW (38): Tomato juice.

LOW-MEDIUM (44-50):

Unsweetened apple (44); unsweetened orange (50).

HIGH (>60): Juice cocktails; juices with added sweeteners.

Beans, Nuts and Legumes

The golden children of blood sugar, these babies do the balancing for you, with inbuilt carb-protein ratios that favour steady blood sugar and satiety. They all come in admirably low on the GI scale but for a real coup, try peanuts or soybeans.

SUPER LOW (7-15): Peanuts (7); soybeans (15).

LOW (20-40): Kidney beans, lentils and cashews (20 to 30); black-eyed peas, black beans, canned chickpeas and navy beans (30 to 40). ■

MEET
OUR

BODYBLITZ GRAND CHAMPION NATALIE WRIGHT

BodyBlitz champion Natalie Wright has overcome more than just her weight and fitness woes. During the challenge, she had a lump removed from her breast, suffered a deeply personal loss and topped it off with a move overseas. Even so, she had some amazing results and has come out on top as our BodyBlitz Champion.

“
THE
BODYBLITZ
CHALLENGE KEPT
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WHEN I NEEDED
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”

After travelling for almost two years with my boyfriend – who seems to be able to eat anything and never change – I put on a lot of excess weight, 14 kilos to be exact. I didn't regret one minute of the trip, but by the time we got back to Australia I felt heavy, tired and completely lacking in energy.

The turning point was realising none of my work clothes fit, I couldn't even do the zippers up! At the time I didn't have the money to buy a new work wardrobe... I broke down. I was working long hours in the corporate world, and the combination of the way I was feeling and the work I was doing simply made life harder. I got to the point where the money was good but nothing else was, and dammed if I wanted to feel like that for the rest of my life. I wanted more! I came across the BodyBlitz challenge after seeing a winner's article in *WH&F*, and I thought, 'Why not try this?' It turns out to be the game changer I needed!

The results I got from doing the challenge were the start of something bigger. I saw great results but knew I could get amazing if I kept going. It made me realise that I always want to do whatever I have to in the attempt to prevent cancer and diseases. After the challenge was when I started training harder and really stepped it up a notch. Two months after the challenge I made more changes to my diet and I noticed the thin layer of chub I seemingly just couldn't shift starting to disappear. This was unbelievably motivating as I started to see definition from all the weights I had been doing.

The change wasn't easy; actually, it was harder than I imagined! But the feeling of bloated and chubby is something I never want to go back to as it makes me so unmotivated to do anything, and I don't want that.



On overcoming challenges

About halfway through the challenge I found a lump in my breast. I went in for a biopsy and ended up having it removed. This was the hardest three weeks of my life – waiting to hear if it was cancerous or not. In the same week, my father was also diagnosed with lung cancer. This threw my head into overdrive. But my own lifestyle changed as a result – I wanted to be positive. It became easier to eat healthily because I didn't ever want to get cancer because of my own poor lifestyle habits.

Thankfully, the lump in my breast was not cancerous, but I did require an operation. They removed 80 per cent of my left breast and I had to have six days off. During this time, I stayed controlled with food and did lower body strength training at home. I didn't want this to be what stopped me continuing with my achievements, so I stayed very strong-minded and kept visualising where I wanted to be. I kept doing whatever I could to keep myself healthy, with excellent nutrition and low-intensity workouts.

Although this was the hardest and most traumatic time of my life, I kept strong and looked at setbacks like another challenge thrown at me to make me stronger. The BodyBlitz challenge kept me focused at a time in my life when I needed it the most. I had such a deep desire to keep

going and potentially win. I guess it was like an inner challenge for me, and I believed that if I kept up the healthy eating and fitness then things could and would only get better. The week my winning article came out in *WH&F* was the same week my father passed away. It was a strange old time with a bittersweet feeling and my own personal victory. My father never saw the article, but I believe the reason I won was because his illness gave me the inner strength to never want to get cancer. The way of life I took on during the challenge is now just a part of every day. My life has changed in ways I never dreamed possible.

On workouts:

During the challenge, probably over halfway, I decided that I needed to get a trainer. I wanted someone to help get me to the next level in my training. I worked with a trainer from my local gym every Saturday morning. I knew the basics of what to do, but that was from when I used to train in my early 20s, and by the time a woman's body gets to 33, things really change! My weight training was amped up tenfold by my trainer, and I was sore in places I didn't even know pain could exist. My trainer was amazing at working around this, but still getting results.

I love my current level of fitness! Since the challenge, everything has come a long way – I never thought I could

(H) WHAT I DO

MONDAY: 40 min of cardio and legs

TUESDAY: Yoga, 20 min cardio

WEDNESDAY: Arms and HIIT cardio

THURSDAY: HIIT cardio, legs, butt

FRIDAY: 20 min of cardio, yoga or Pilates and extra abs

SATURDAY: Low-intensity bike ride or swim or long walks

SUNDAY: Day off

(F) WHAT I EAT

Breakfast: Chia pudding and green juice or protein super-food smoothie

Lunch: Salad with fish or salmon and olive oil and avocado mash

Dinner: Stir-fried or roasted vegies with quinoa

Snacks: Nuts, fruit

Everything I now eat is gluten free and mostly dairy free. This has been a huge contribution to losing weight.

have a butt that was as toned as it is now. It got to the point I thought, 'Oh well, it's just genetic,' but with the training I'm doing, I'm seeing huge results. I feel stronger than I have ever felt. It's helped me stay mentally strong and believe that I can do anything I set my mind to. When I didn't have the fitness I have now, I used to get down a lot easier. My cardio has definitely dropped back and weights are the main focus; however, I do love to run every day for mental clarity. Variety is key for me. I get bored easily, so I need to keep things mixing. Most of the time I won't go to the gym or park with a plan; I'll just do whatever comes to mind. I like to keep it this way – I don't like to feel like exercise has to be a strict plan every day.

On food:

In the past, I would just eat and deal with the consequences later. Food changes everything inside and out. I never really understood this or even deeply listened to my body. I would just eat things, feel crappy, have heartburn, dry skin, brittle hair and an excess layer of body fat. No matter how hard I was working out and 'eating right', things weren't changing, but now through education and understanding my body, everything changed. I have since realised what works for me and what doesn't. The main thing I have changed is eating more raw

foods, less meat and less dairy. When I'm craving something I'll listen to my body and work out what vitamins and minerals it really needs.

During the initial challenge, I had a girlfriend say to me, "What are you doing, you look so good?" That night I woke up with a great business idea to help people. It came to me at 4am. I decided I wanted to start a salad business. The next morning I was online creating a company. It's called BANG

“
THE MAIN
THING I HAVE
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”

SALADS do SALAD. I thought 'bang!', I can educate people on how to eat and make healthy, quick and simple salads in a fun way. I've gathered followers and media interest around this great idea and loving every minute of it. Every week I'll film myself in the kitchen demonstrating how to make something. I love the challenges that come along with starting your own business.

Promoting a healthy, happy positive way of life is the greatest thing I've ever done.

On body:

Since finishing the challenge I have more motivation than ever. I wanted to see how amazing I can get this body to look! After the challenge I had less cellulite, firmer skin and fewer breakouts!

Three months after the challenge ended I had reconstructive surgery on my breasts. After losing a large proportion of my breast I decided for myself to have them fixed – I wasn't happy and at that stage didn't ever want to wear a bikini again! I knew some people would be judgmental, but honestly, that's their problem. For me this was a very important thing to do as it truly gave me the confidence back that I was missing. I know how much happier I am that I can walk down the beach without a missing breast.

Loving and accepting your body is something we are all capable of. When we treat our body with love and respect through eating right and exercising, it responds in amazing ways. I've been down and out in the past and didn't listen to any signs my body gave me, but once I started

listening to my gut, everything changed. My best advice is to keep telling yourself you are amazing and great things will happen; cellulite and stretch marks don't define your future.

On the future:

I'm currently based in the USA. If you asked me 12 months ago where I would be it would definitely not have been here. If I didn't take on the challenge, I would be still feeling the same, with no energy and limited perspective. I decided to take the path less travelled and signed up to become an integrative nutrition health coach. I love everything I'm learning and cannot wait to help people be healthy, fit and happy! If I can help transform one person's life the way I did my own then I'll be the happiest girl in the world. I'm also about to take on my personal training certificate in the USA.

To top it all off, I recently released my first book: *The Kitchen Workout*. This idea came about when I resigned from my career to go back to study again. I had to cancel my gym membership for a time as money didn't allow for it. I wanted to incorporate working out and cooking at the same time – two of the things I love the most. I also wanted to create something quick and fun and that's what *The Kitchen Workout* is: a seven-day meal plan for beginners, introducing them to healthy recipes and some quick workouts to go along with it!

Doing the BodyBlitz challenge turned out to be the greatest thing I have ever done for myself. It kept me striving for greatness, and that's exactly what I achieved and will continue to do. I feel that if you're feeling healthy, then no matter what obstacles are put in your way, you can take them on. ■



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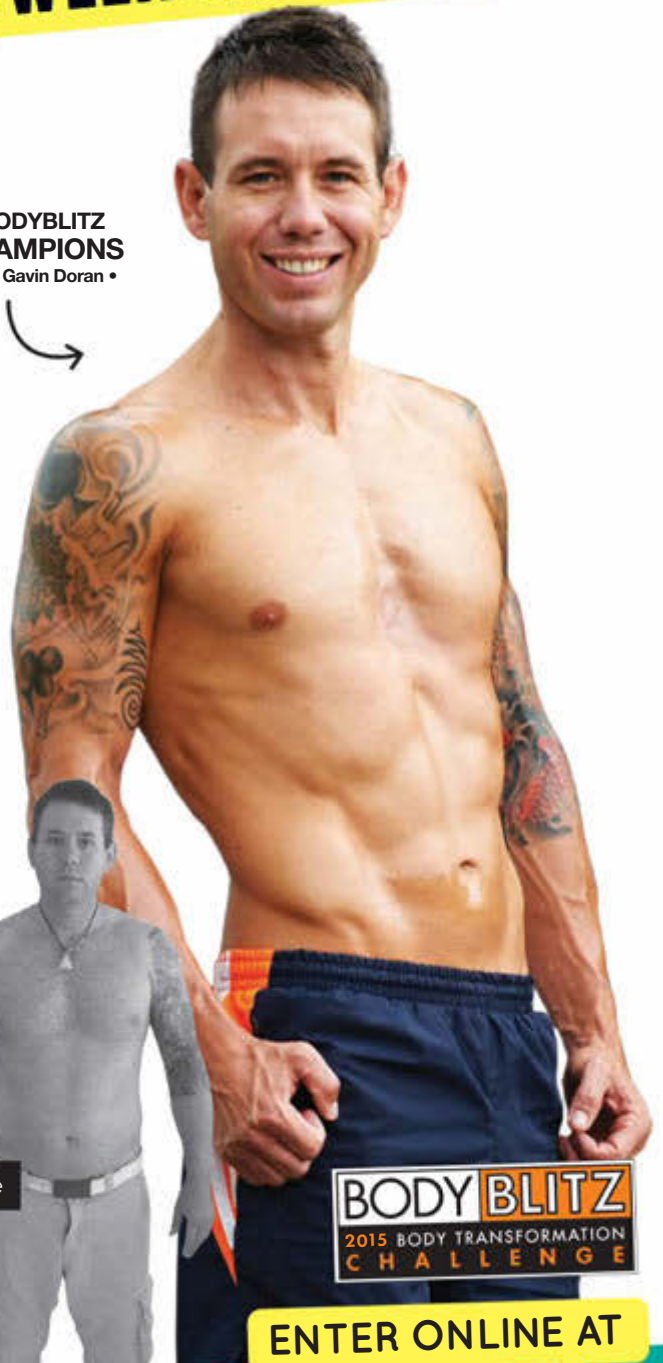
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No, we haven't been spending too much time listening to Coldplay. Vida means life in Portuguese, and that is why Vida Glow – a 100 per cent natural marine collagen supplement – aims to empower you with a little extra life glow. Collagen is the most abundant protein in our bodies, and by keeping your levels up (something that becomes increasingly difficult after your mid-twenties) you're technically increasing the building blocks that maintain our hair, skin, muscles and nails. Apparently, Japanese women have used marine collagen as a secret weapon for youthful radiance for many years, and now it's available worldwide! Gratitude:

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ALL OVER JOJOBA

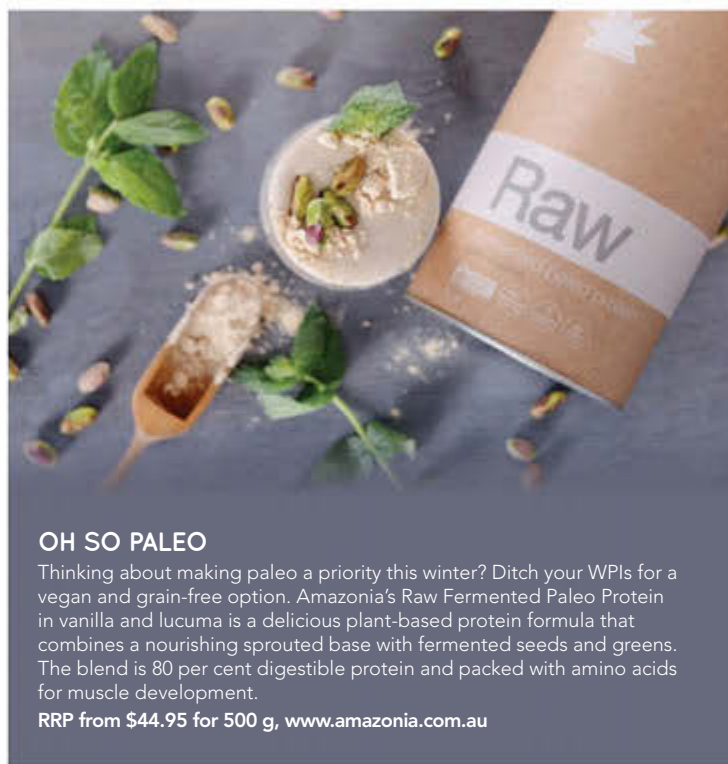
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OH SO PALEO

Thinking about making paleo a priority this winter? Ditch your WPIs for a vegan and grain-free option. Amazonia's Raw Fermented Paleo Protein in vanilla and lucuma is a delicious plant-based protein formula that combines a nourishing sprouted base with fermented seeds and greens. The blend is 80 per cent digestible protein and packed with amino acids for muscle development.

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RRP \$339,
www.garmin.com.au



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Thinking of a summer holiday? Get a leg up on your beach-body goals with INC Diet Whey. It's a low fat, high-protein powder containing specialised ingredients including green coffee bean extract and L-Carnitine to support the body's natural energy-converting processes. In addition, it contains a good source of dietary fibre and Garcinia cambogia extract to help you feel fuller for longer. This is a complete formula as it also contains essential micronutrients and antioxidants to support your daily demands, so you can use it as a snack, as a meal replacement or during post-gym recovery.

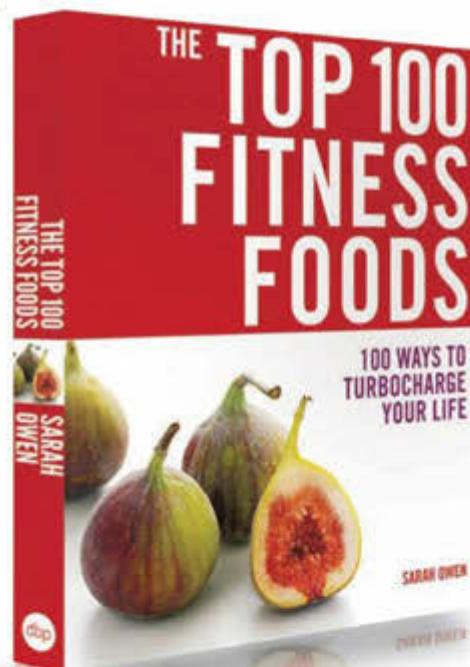
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HOW TO BE...

Vicki Engsall

From the day her father planted his first crop of jojoba plants, Vicki Engsall was right behind him with a passion for natural beauty and desire to bring jojoba skincare to the world. We chatted to her about doing beauty the natural way with The Jojoba Company.

Jojoba really is amazing for the skin, and totally unique. Jojoba plants produce a liquid wax, often referred to as jojoba oil, which has a structure similar to our skin's own sebum. Because of their affinity to our skin, the wax esters in jojoba provide similar nurturing and moisturising properties as our own sebum. This means jojoba products won't clog pores the way oils can.

My father has a jojoba farm in Yenda in NSW, so of course that sparked an interest in jojoba for me. When I found out all about this amazing golden liquid, I realised there was nothing else comparable.

My dad often told me, from a very young age, to follow my passions and my dreams and to always do what makes me happy, not what I think I should do or feel obligated to do, and to never be afraid of taking risks. That has been the best advice I've ever received.

Natural beauty is very important to me. I want to age gracefully and stay natural and healthy looking, not plastic looking. My personal style is relaxed and casual. It's the way I feel most comfortable.

The best thing about being in the beauty industry is the creativity it brings with all the beautiful packaging and innovative products and being a part of these innovations. I also love being at the forefront of new and exciting skin solutions – every girl wants the inside knowledge of how to keep her skin beautiful!

For beautiful skin, I recommend using great natural products. Jojoba-rich products will help to create glowing, healthy, beautiful-looking skin – but you need to work on the inside as well. What you eat and drink will also make a difference to your skin. Making sure you drink enough water each day and nourishing your body with healthy natural and organic foods will help to keep your skin and body healthy and glowing!

Using a good SPF is also important, as the sun is the number one cause of damage to the skin. During the day, I use our SPF15 moisturising protective day cream.

My everyday beauty routine involves first removing any make-up with our 100 per cent natural make-up remover, followed by a quick cleanse with our Bead Facial Cleanser. I then apply our Absolute Serum, our anti-aging serum, all over my face, neck and décolletage and follow that with the Ultimate Jojoba. At night I use our Overnight Renewal Cream. I exfoliate three times per week and I try to find time to use a mask at least once a week.

I get a buzz when people

get great results with our products, particularly those who are suffering with skin conditions. When you're skin clears up you gain confidence again and become a much happier person – I love that! I am passionate about helping others and I am passionate about jojoba as I have seen first-hand, time and time again, the difference it can make to a person's skin.

I keep healthy and happy by exercising regularly.

Exercise keeps the endorphins high in your body, which gives you a natural, healthy glow and keeps your mood high! I also visit a naturopath regularly; I think it's better to eat well and look after yourself from a holistic angle rather than treating your body when it falls apart from less-than-ideal lifestyle choices. Also eat kale every day – I think it's amazing for skin and health!

My ultimate indulgence is a weekend at a health retreat. Most of the time this involves starting each day with a walk followed by a yoga session and some relaxation, then having a beautifully healthy vegetarian meal cooked for me! I would get a facial or a massage each day too, and depending where you go, there are talks on health or cooking lessons...it's a total rejuvenation and I highly recommend it. ■



Using a good SPF is also important, as the sun is the number one cause of damage to the skin.

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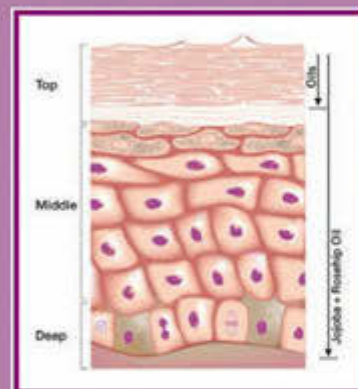
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